My availability—Set your availability status. Select **Available** (indicated by ▯), **Busy** (indicated by ▯) or **Not available** (indicated by ■). Setting an availability status does not prevent your phone from receiving calls or messages, or change the behavior of the phone in any way.

My presence message—Enter a status message to be shown to other persons, or select **Options > Previous msgs.**, and an old message as the status message. You can use the message to tell viewers where you are, what you are doing, or any other information that you wish to share.

My presence logo—Select your personal logo from the **Graphics** folder in the gallery. If you select **Default**, the logo is not published.

Show to—Choose the groups with whom you want to share or not share your presence status information. Select one of the following:

- **Private and public**—Contacts in your private list can see your full presence information; other contacts can see only your availability.

- **Private viewers**—Contacts in your private list can see your full presence information; other contacts cannot see any information.

- **No one**—No one can see your presence information.

Manage viewers

VIEW LISTS OF VIEWERS

From the menus, select **Contacts > My presence > Viewers** and one of the following:

Current viewers—View all the persons who have subscribed to your presence information.

Private list—View the list of persons who are allowed to see all of your presence information. Viewers who are not in your private list can see only your availability.

Blocked list—View the list of persons you have blocked from viewing your presence information.

ADD AND REMOVE VIEWERS FROM YOUR PRIVATE LIST

Viewers on your private list can see all of your presence information, including availability, status message, and logo.

1 From the menus, select **Contacts > My presence > Viewers > Current viewers > Options > Add to private list**.

2 Scroll to each viewer that you want to add to your private list, and select **Mark**.

3 To remove a viewer from the private list, select **Unmark**.

4 When you are finished, select **Done**.

BLOCK AND UNBLOCK VIEWERS

Viewers on your blocked list cannot see any of your presence information.

1   From the menus, select **Contacts > My presence > Viewers > Current viewers > Options > Move to blocked list**.

2   Scroll to each viewer that you want to add to your blocked list, and select **Mark**.

3   To remove a viewer from the blocked list, select **Unmark**.

4   When you are finished, select **Done**.

Settings

From the menus, select **Contacts > My presence > Settings** and one of the following:

Show current presence in idle—Choose whether to show your current presence status on the start screen. Select **On** to show the current status indicator or **Off** to hide it.

Synchronize with profiles—You can update your presence message and availability status automatically by linking them to the currently active profile. See "Customize a profile" on page 78 for more information. Select **On** to update automatically, or **Off** to update manually. You cannot link a personalized status logo to a profile.

Connection type—Select **Automatic** to have the phone connect automatically to the presence service when the phone is switched on. Select **Manual** connect to the presence service manually.

Connect. settings—Set the IM and presence settings. See "IM and presence settings" on page 95.

• SUBSCRIBED NAMES

You can create a list of contacts whose presence status information you want to be aware of. You can view the information if the contacts allow you to view it and the network does not prevent it. You can view these subscribed names either by scrolling through your contact list or by using the **Subscribed names** submenu.

Connect to service

1   Make sure that the memory in use is either **Phone** or **Phone and SIM**.

    See "Select contacts view and memory" on page 77.

2   To connect to the presence service, from the menus, select **Contacts > My presence > Connect to My presence service**.

When you are not connected to the presence service, you can view the subscribed names but you cannot see their presence status information.

Subscribe to a contact

FROM THE SUBSCRIBED NAMES MENU

1 From the menus, select **Contacts > Subscribed names**.

If you have not connected to the presence service, the phone asks if you want to connect now.

2 Select **Options > Subscribe new**, and select a contact from the list.

If the contact has a user ID saved, the contact is added to the subscribed names list. If there are multiple user IDs, select one of them. After subscription to the contact, **Subscription activated** is shown.

FROM THE CONTACT LIST

1 At the start screen, press the **Scroll down** key, and scroll to the contact you want to subscribe to.

2 Select **Details > Options > Request presence**.

3 To subscribe to the contact, select **As subscription**.

OR

To view the contact's presence information without subscribing, select **One time only**.

View subscribed names

1 From the menus, select **Contacts > Subscribed names**.

The status information of the first contact on the dynamic contacts list is displayed. The information that the person wants to give to the others may include text and some of the following icons:

 ,   or indicate that the contact is either available, busy, or not available.

 indicates that the contact's presence information is not available.

2 Scroll to the desired contact, and select one of the following:

Details—View the details of the selected contact.

Options > Subscribe new—Add a new contact to the list of subscribed names.

Options > Chat—Start a chat conversation.

Options > Send message—Send a text message to the selected contact.

Options > Send e-mail—Send an e-mail to the selected contact.

Options > Send bus. card—Send a business card to the selected contact.

Options > Unsubscribe—Remove the selected contact from the list of subscribed names.

Unsubscribe a contact

FROM THE SUBSCRIBED NAMES MENU

1 From the menus, select **Contacts > Subscribed names**.

2 Scroll to the contact that you want to unsubscribe, and select **Options > Unsubscribe**.

FROM THE CONTACT LIST

1 At the start screen, press the **Scroll down** key, and scroll to the contact you want to unsubscribe.

2 Select **Details**, select the ID, and select **Options > Unsubscribe > OK**.

• COPY ENTRIES

1 From the menus, select **Contacts > Copy > From phone to SIM card** or **From SIM card to phone** and one of the following:

One by one—Selects and copies entries one by one. Go to step 2.

All—Copies all entries from the SIM card or phone. Go to step 3.

Primary numbers—Copies only primary numbers. This appears only if you selected **From phone to SIM card**. Go to step 3.

2 Scroll to the entry you wish to copy, and select **Copy > Keep original** or **Move original**.

> **Warning:** Select **Keep original** if you are unsure of which copy method to use. This ensures original entries are merely copied to the new location. **Move original** deletes files after copying.

The entry is copied and you are returned to the list of contact entries.

3 If you selected **All** or **Primary numbers** in step 1, select **Keep original** or **Move original > Yes** to confirm your choice.

All entries are copied to the selected destination.

4 Select **Back** to return to the list of contacts entries, or press the **End** key to return to the start screen.

• BUSINESS CARDS

You can send and receive an entry in contacts to a compatible phone or other handheld device using IR, Bluetooth, or a text or multimedia message, if supported by your service provider.

Receive a business card using IR

1 From the menus, select **Settings > Connectivity > Infrared** to ensure IR is activated.

When you receive the business card, your phone beeps, and a message appears in the display.

2 Select **Show > Save** to save the business card in phone memory, or select **Exit > OK** to discard the business card.

Send a business card

1 Highlight an entry from contacts that you wish to send, and select **Details > Options > Send bus. card > Via infrared**, **Via text message**, **Via Bluetooth**, or **Via multimedia**.

2 If the contact has more than one number, select **Primary number** or **All details**.

3 Follow the prompts to finish sending the business card.

• 1-TOUCH DIALING

You can associate any phone number with a key from **2–9**, and dial that entry by pressing and holding the assigned key. If you assign a number that is not already in your contact list, the number is added to the list.

Assign a key

1 From the menus, select **Contacts > 1-touch dialing**.

2 Scroll to any empty slot, and select **Assign**.

3 If the entry is already in contacts, select **Find**, the desired entry, and the desired number within the entry.

The number is assigned to the key.

4 If the entry is not in contacts, enter the number (including the area code), and select **OK**, enter a name for the number, and select **OK**.

The number is assigned to the key and the name and number are added to the contact list.

Make a call

Press and hold the key to which an entry has been assigned. Your phone dials the entry assigned to the key.

Change numbers

1   From the menus, select **Contacts > 1-touch dialing**.

2   Scroll to the 1-touch dialing entry you wish to change, and select **Options > Change**.

3   If the new entry is already in contacts, select **Find**, the desired entry, and the desired number within the entry.

    The new number is assigned to the key.

4   If the new entry is not in contacts, enter the number (including the area code), and select **OK**, enter a name for the number, and select **OK**.

    The new number is assigned to the key, and the new name and number are added to the contact list.

Delete numbers

1   From the menus, select **Contacts > 1-touch dialing**.

2   Scroll to the 1-touch dialing location you wish to delete, and select **Options > Delete > OK**.

• VOICE DIALING

You can make a phone call by saying a voice tag that has been added to a phone number in contacts. Any spoken word, such as a name, can be a voice tag. You can assign voice tags to up to 25 contacts.

Notes about voice tags

- Voice tags are sensitive to background noise. Record them and make calls in a quiet environment.

- Very short names are not accepted. Use longer, unique names, for example, "John Smith, work."

- When recording a voice tag or making a call using a voice tag, hold the phone in the normal position at your ear.

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.

Assign a voice tag

1   At the start screen, press the **Scroll down** key to display the contacts.

2   Scroll to the entry you would like to assign a voice tag, and select **Details**.

3   If the entry has multiple numbers, scroll to the number you wish to tag.

4   Select **Options > Add voice tag > Start**.

5   After the phone beeps, pronounce the voice tag clearly into the microphone.

    After the voice tag is recorded, it is replayed through the earpiece and a confirmation note appears in the display. The 🔅 icon is displayed next to the number in the contact list.

Voice dial a number

WITHOUT THE HEADSET

1   At the start screen, press and hold the **Volume down** key.

    The phone beeps, and **Speak now** appears in the display.

2   Within 3 seconds, pronounce the tag into the microphone.

    Once the voice tag is recognized, the tagged entry appears in the display, replays through the earpiece, and the number is dialed.

VOICE DIAL WITH THE HEADSET

1   At the start screen, press and hold the remote button on the headset.

    The phone beeps, and **Speak now** appears in the display.

2   Pronounce the voice tag into the microphone.

    Once the voice tag is recognized, the tagged entry appears in the display, replays through the earpiece, and the number is dialed.

Display, change, and delete voice tagged entries

1   From the menus, select **Contacts > Voice tags**.

    The first voice tagged name and number appear in the display.

2   Press the scroll keys to view other voice tagged entries in alphabetical order.

3   Select a voice tag; then select one of the following:

    Playback—listen to the voice tag.

    Change—Record a new voice tag in place of the existing one.

    Delete—Delete the voice tag.

• INFO, SERVICE, AND MY NUMBERS

Your service provider may have saved the operating number of your phone, as well as various information and service numbers to your SIM card.

From the menus, select **Contacts** and one of the following:

Info numbers—Contact your service provider to obtain information.

Service numbers—Contact your service provider to obtain service.

My numbers—Display the operating number, or numbers which have been assigned to your phone by your service provider.

• CALLER GROUPS

You can add contacts entries to any of five caller groups, and then assign a unique ringing tone or graphic to that group. This enables you to identify callers from the group by their unique ringing tone or graphic. A caller group can be as small as one person or as large as the contacts list. You can rename caller groups to suit your preference.

To set the phone to ring only for calls from members of a selected caller group, see the **Alert for** option in "Customize a profile" on page 78.

Set caller group options

1   From the menus, select **Contacts > Caller groups > Family, VIP, Friends, Business**, or **Other** and one of the following:

   Rename group—Rename the group to your preference.

   Group ringing tone—Set the ringing tone for the group.

   Group logo—Turn the graphic for the caller group on or off.

   Group members—Add or remove members from the caller group.

2   Follow the prompts to set the option according to your preference.

Set up a caller group

1   Recall a name from contacts, and select **Details > Options > Caller groups**.

2   Select the caller group to which you want to add the name.

Remove a name from a caller group

1   From the menus, select **Contacts > Caller groups > Family, VIP, Friends, Business**, or **Other > Group members**.

2   Scroll to the name that you want to remove, and select **Options > Remove**

contact.

• SELECT CONTACTS VIEW AND MEMORY

At the start screen, select **Contacts > Settings** and one of the following:

Memory in use—Select the memory you wish to use. Options are **Phone**, **SIM card**, or **Phone and SIM** combined. With **Phone and SIM** selected, when you save a new contact entry, it is saved to phone memory only. However, when you display the contact list you can see the entries in both phone memory and the SIM card.

Contacts view—Select the **Name list**, **Name and number**, **Name only**, or **Name and image** view.

Memory status—View the amount of phone or SIM memory used and available.

10 Settings (Menu 4)

Use this menu to set or change your personal shortcuts, time and date settings, call settings, phone settings, display settings, tone settings, enhancement settings, security settings, and to restore factory settings.

• PROFILES

Profiles define how your phone reacts when you receive a call or a message, how your keypad sounds when you press a key, and more. Ringing options, keypad tones, and other settings for each of the five available profiles can be left at their default setting, or customized to suit your needs. Select and customize the most suitable profile for your situation, such as when you are in a meeting or outdoors. The profiles available are **Normal**, **Silent**, **Meeting**, **Outdoor**, and **Pager**.

Profiles are also available for enhancements such as a headset and car kit. See "Enhancement settings" on page 95 for more information about enhancement profiles.

Select a profile

From the menus, select **Settings > Profiles**, a profile from the list, and **Activate**.

Customize a profile

You can customize any of the profiles a variety of ways.

1 From the menus, select **Settings > Profiles**.

2 Select the profile you want to customize; select **Customize** and one of the following:

   Incoming call alert—Select how the phone notifies you of an incoming call.

   Ringing tone—Select the ringing tone for incoming calls.

   Ringing volume—Set the volume of your ringing tone.

   Vibrating alert—Turn the vibrating alert on or off.

   Message alert tone—Select the tone for received messages.

   Instant message alert tone—Select the tone for incoming instant messages.

   Keypad tones—Set the volume of your keypad tones (or turn them off).

   Warning tones—Turn warning and confirmation tones on or off.

   Alert for—Define which caller groups the selected profile will accept or decline. See "Caller groups" on page 76 for more information.

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My presence—Set your availability status and presence message for the selected profile. This option appears only if the **Synchronize with profiles** presence setting is set to **On**. See "Presence service" on page 68 for more information.

Profile name—Rename the profile (up to 16 characters). You cannot rename the **Normal** profile.

Set a timed profile

Timed profiles can be used to prevent missed calls. For example, suppose you attend an event that requires your phone be set to **Silent** before the event starts, but you forget to return it to **Normal** until long after the event. During this time, you have missed several calls because the ringing tone was silent.

With the timed profile feature, you can set a profile to expire after any length of time up to 24 hours. When the profile expires, your phone automatically returns to the default profile.

1 From the menus, select **Settings > Profiles**.

2 Select a profile and **Timed**.

3 Enter the time for the profile to expire, and select **OK**.

   The profile you have set for expiration is now active and appears in the start screen along with a small clock icon.

Change presence status

This function is available if you have set **Synchronize with profiles** to **On**. See "Presence service" on page 68.

1 From the menus, select **Settings > Profiles**.

2 Select a profile; then select **Customize > My presence** and one of the following:

   My availability—Select your availability status (**Available**, **Busy**, or **Not available**).

   My presence message—Edit your status message, and select **OK**.

• TONE SETTINGS

You can adjust the ringing volume, keypad tones, and more for the active profile.

Select **Settings > Tone settings** and one of the following:

Incoming call alert—Select how the phone notifies you of an incoming call.

Ringing tone—Select the ringing tone for incoming calls.

Ringing volume—Set the volume of your ringing tone.

Vibrating alert—Turn the vibrating alert on or off.

Message alert tone—Select the tone for received messages.

Instant message alert tone—Select the tone for incoming instant messages.

Keypad tones—Set the volume of your keypad tones (or turn them off).

Warning tones—Turn warning and confirmation tones on or off.

Alert for—Define which caller groups the selected profile will accept or decline. See "Caller groups" on page 76 for more information.

• DISPLAY SETTINGS

Wallpaper

You can set your phone to display a background picture (wallpaper) on the start screen. Some pictures are presaved in the **Gallery** menu. You can also take pictures with the built-in camera; receive pictures using multimedia messaging; download them from browser pages, or transfer them with PC Suite from your PC; and save them in the gallery. Your phone supports JPEG, GIF, BMP, PNG, and WBMP formats but not necessarily all variations of these formats.

SELECT

1   From the menus, select **Settings > Display settings > Wallpaper > Select wallpaper**.

2   Scroll to a folder that contains images, and select **Open**.

3   Scroll to the image of your choice, and select **Options > Set as wallpaper**.

ACTIVATE OR DEACTIVATE

1   From the menus, select **Settings > Display settings > Wallpaper**.

2   Select **On** to activate or **Off** to deactivate.

Select color scheme

You can change the color of some display components in your phone, such as indicators and signal bars.

From the menus, select **Settings > Display settings > Color Schemes** and the color of your choice.

Select menu view

You can select either the **List** interface or the **Grid** interface.

From the menus, select **Settings > Display settings > Menu view > List** or **Grid**.

Show or hide operator logo

This is a network service. If supported by your service provider, you can choose whether the display shows the operator logo when the phone is in the standby mode.

1 From the menus, select **Settings > Display settings > Operator logo**.

2 Select **On** to show the logo or **Off** to hide the logo.

Set screen saver

You can select an image or video clip to use as a screen saver. The screen saver is activated when no function of the phone is used after a preset period of time. Press any key to deactivate the screen saver. The screen saver is also deactivated when the phone is out of the network coverage area.

Regardless of the screen saver settings, for power saving a digital clock view is activated when no function of the phone has been used for a few minutes.

ACTIVATE OR DEACTIVATE

From the menus, select **Settings > Display settings > Screen saver > On** or **Off**.

SELECT IMAGE

1 From the menus, select **Settings > Display settings > Screen saver > Select s. saver**.

2 Scroll to the folder containing the image or video clip that you want to use, and select **Open**.

3 Scroll to the desired image or video clip, and select **Options > Set as s. saver.**

SET TIMEOUT

You can set your phone to display a screen saver after a preset time or after a custom time (up to 60 minutes) of your choosing.

1 From the menus, select **Settings > Display settings > Screen saver > Time-out**.

2 Select **10 seconds** or **30 seconds**.

   OR

   If you want to set a custom time (up to 60 minutes), select **Other**; then enter the custom time, and select **OK**.

• TIME AND DATE SETTINGS

Set the clock

1   From the menus, select **Settings > Time and date settings > Clock > Set the time**.

2   Enter the time in *hh:mm* format, and select **OK**.

3   If required, select **am** or **pm**.

Show or hide the clock

You can display or not display the clock on the start screen.

From the menus, select **Settings > Time and date settings > Clock > Hide clock** or **Show clock**.

If the clock was previously hidden (not shown on the display), it will now appear in the upper right corner of the start screen.

If the clock was previously shown in the display, it will now be hidden.

Change the time format

You can set the time format for am/pm or 24-hour format (military time).

From the menus, select **Settings > Time and date settings > Clock > Time format > 24-hour** or **12-hour**.

Set the date

1   From the menus, select **Settings > Time and date settings > Date > Set the date**.

2   Enter the date, and select **OK**.

Show or hide the date

You can display or not display the date on the start screen.

From the menus, select **Settings > Time and date settings > Date > Show date** or **Hide date**.

Set or change the date format

1   From the menus, select **Settings > Time and date settings > Date > Date separator** and the separator of your choice (period, slash, hyphen, or space).

2   Select **Date > Date format** and the format of your choice.

Automatic update of date and time

This is a network service. You can set the phone to update the date and time from the network when you turn the phone on. If the clock in your phone is 30 seconds or more off the network time, the phone will be updated automatically to reflect the network time.

Automatic update of the date and time does not change the time you have set for the alarm clock, calendar, or alarm notes. They are in local time. Updating may cause some alarms that you have set to expire.

From the menus, select **Settings > Time and date settings > Auto-update of date & time** and one of the following:

On—Update the time automatically

Confirm first—Request confirmation before updating the time. You can accept or decline the update.

Off—Do not automatically update the time.

• PERSONAL SHORTCUTS

Right selection key

You can set the **Right selection** key to go directly to a specific function from the start screen.

From the menus, select **Settings > Personal shortcuts > Right selection key** and one of the functions in the list.

The selected name or function will appear over the **Right selection** key in the start screen.

Voice commands

Some phone functions can be voice-activated. You can add up to 16 voice commands for these functions.

1 From the menus, select **Settings > Personal shortcuts > Voice commands**.

2 Select the desired command folder, scroll to the command for which you want to add a voice tag, and select **Add**.

3 Select **Start** and speak after the tone.

See "Notes about voice tags" on page 74 for more information.

You cannot activate or add a voice command during a call or while sending or receiving data over a GPRS connection.

• CONNECTIVITY

You can connect the phone to a compatible device using an IR or Bluetooth connection. You can also define the settings for (E)GPRS dial-up connections. You can connect the phone to a compatible PC using IR, Bluetooth, or a data cable; and use the phone as a modem to enable GPRS connectivity from the PC.

For more information, see the Nokia PC Suite online help. Nokia PC Suite and all related software can be downloaded from the U.S. Mobile Phone products section of **www.nokia.com**.

Bluetooth connectivity

Bluetooth connectivity enables cost-free wireless connections between electronic devices within a maximum range of 30 feet. A Bluetooth connection can be used to send and receive images, texts, gallery files, voice recordings, video clips, notes, business cards, and calendar notes. It can also be used to connect wirelessly to products that use Bluetooth wireless technology, such as computers. You can synchronize your phone and your PC using a Bluetooth connection.

Since devices with Bluetooth connectivity communicate using radio waves, your phone and the other device do not need to be in direct line-of-sight.

The two devices only need to be within a maximum of 30 feet (10 meters) of each other, although the connection can be subject to interference from obstructions such as walls or from other electronic devices.

The Bluetooth application consumes the battery and reduces the operating time of the phone. Take this into account when performing other operations with your phone.

There may be restrictions on using devices with Bluetooth connectivity. Check with your local authorities.

The Nokia 6230 supports Bluetooth specification 1.1 and the following profiles:

- SIM access profile (SAP)
- Object push profile (OPP)
- File transfer profile (FTP)
- Dial-up networking profile (DUN)
- Headset profile (HSP)
- Hands-free profile (HFP)
- Service discovery profile (SDP)
- Generic access profile (GAP)
- Serial port profile (SPP)

- Generic access exchange profile (GOEP)

For compatibility between your phone and another device with Bluetooth connectivity, consult the device documentation and your Nokia dealer.

PAIRING

You can set up a permanent association (pairing) between your phone and another device with Bluetooth connectivity. Some devices may require pairing before data transfer can take place.

To pair with a device, you and the owner of the other device must agree on a passcode of 1–16 numeric characters. The first time you try to connect the devices, you must each enter the same passcode. Once the devices are paired, you will not need to use the passcode again, so there is no need to remember it.

Paired devices are placed in your paired device list. You can view the list even when Bluetooth is not active or when the devices in the list are not available for connection.

To view the paired device list:

1 From the menus, select **Settings > Connectivity > Bluetooth > Paired devices**.
2 Scroll to the desired device, and select **Options** and one of the following:

   Assign short name—Give a nickname (visible to you only) to the selected device.

   Request conn. authorization—Select **No** if you want the phone to connect to the selected device automatically or **Yes** if you want the phone to ask for your permission first.

   Delete pairing—Delete the pairing to the selected device.

   Pair new device—Search for active devices with Bluetooth connectivity within range, scroll to the desired device, and select **Pair** to establish pairing with that device.

SETTINGS

You can define how your phone is shown to other devices with Bluetooth connectivity.

From the menus, select **Settings > Connectivity > Bluetooth > Bluetooth settings** and one of the following:

My phone's visibility—Select **Shown to all** to show the phone to all other devices with Bluetooth connectivity or **Hidden** to show the phone only to the paired devices.

My phone's name—Change your phone name that is seen by other users.

SET UP A BLUETOOTH CONNECTION

1   From the menus, select **Settings > Connectivity > Bluetooth**.

2   To activate the Bluetooth function, select **Bluetooth > On**.

The active Bluetooth connection is indicated by $\langle\circledast\rangle$ at the top of the display.

3   Select **Search for audio enhancements** to search for compatible devices with Bluetooth connectivity.

The list of found devices appears in the display.

4   Select the desired device.

5   If required, enter the Bluetooth passcode of the device to pair with the device.

Your phone connects to the device. You can start data transfer.

6   To view the device you are connected to, select **Active device**.

7   To deactivate Bluetooth, select **Bluetooth > Off**.

SEND DATA

Instead of using the **Settings** menu, you can use other phone menus to send various types of data to other devices with Bluetooth connectivity. For example, you can send a video clip from the **Video clips** folder of the **Gallery** menu. See the appropriate sections of the user guide for information about sending different types of data.

RECEIVE A DATA TRANSFER

When a Bluetooth connection is active in your phone, you can receive notes, business cards, video clips, and other types of data transfers from another device with Bluetooth connectivity. When you receive a data transfer, an alarm sounds, and a message appears in the start screen.

To view the transferred item immediately, select **Show**.

OR

To save the item for later viewing, select **Exit**.

Depending on the nature of the item it is saved in the appropriate menu in your phone. For example, a business card would be saved in **Contacts**, and a calendar note would be saved in **Calendar**.

Infrared

You can set up the phone to receive data through its IR port. To use an IR connection, transmission and reception must be to or from an IR compatible phone or device. You can send or receive data such as business cards, graphics, images, sound clips, videos, and calendar notes to or from a compatible phone or data device (such as a computer) using the IR port of your phone.

> ⚠️ **Warning:** Do not point the IR beam at anyone's eye or allow it to interfere with other IR devices. This device is a Class 1 laser product.

SEND AND RECEIVE DATA

1   Ensure that the IR ports of the sending and receiving devices are pointing at each other and that there are no obstructions between the devices.

   The preferable distance between the two devices in an IR connection is from 3 inches to 3 feet.

2   Activate IR in your phone by selecting **Settings > Connectivity > Infrared** from the menus.

3   The user of the other device should activate IR as well.

If data transfer is not started within two minutes after the activation of the IR port, the connection is cancelled and must be restarted.

CONNECTION INDICATOR

- When is shown continuously, the IR connection is activated and your phone is ready to send or receive data using its IR port.

- When blinks, your phone is trying to connect to the other device or a connection has been lost.

GPRS, EDGE, CSD, HSCSD

With your phone you can use general packet radio service (GPRS), high-speed circuit switched data (HSCSD), and circuit switched data (CSD). The use of HSCSD services consumes the battery faster than normal voice or data calls. You may need to connect the phone to a charger during HSCSD data transfer.

With GPRS, you can stay connected to the mobile Internet and allow faster downloads without completing a dial-up connection. Applications using GPRS include MMS, SMS messaging, browsing sessions, e-mail, remote SyncML, Java application downloading, and the PC dial-up. Your phone can support three simultaneous GPRS connections.

Enhanced GPRS (EGPRS), also known as EDGE (enhanced data rates for GSM evolution) is similar to GPRS but the connection is much faster.

To use the EDGE service, subscribe to it from your service provider and save the GPRS settings for the functions that you want to use over the EDGE network. For information on pricing, availability, and data transfer speed, contact your service provider.

When you have selected GPRS as a data bearer, the phone uses EDGE instead of GPRS if this is available in the network. You cannot choose between EDGE and GPRS, but for some applications, such as browsing mobile Internet pages, you may be able to select either GPRS or CSD.

DEFINE GPRS CONNECTION

Depending on your service, you may be able to define when the phone connects to the GPRS or EDGE network.

From the menus, select **Settings > Connectivity > GPRS > GPRS Connection** and one of the following:

When needed—The phone registers and connects to the GPRS or EDGE network only if you use a function that needs the GPRS service. Establishing a connection may take longer than when **Always online** is selected.

Always online—The phone automatically registers to a GPRS or EDGE network when you switch the phone on, if the network is available in your location.

GPRS MODEM SETTINGS

When you use your Nokia phone as a wireless modem, you can enable GPRS connectivity from your PC or laptop computer.

Before you can use GPRS technology, you must save the GPRS settings for each of the applications used over GPRS. Some service providers may have already set up information for your GPRS dial-up connection.

In order to use GPRS, you must first subscribe to the network service. Contact your service provider for details.

1   From the menus, select **Settings > Connectivity > GPRS > GPRS modem settings > Active access point** and the access point that you want to activate.

2   Select **Edit active access point > Alias for access point**, enter the name for the access point, and select **OK**.

3   Select **GPRS access point**, enter the access point name to establish a connection to a GPRS network, and select **OK**.

You can also set the GPRS dial-up service settings (access point name) on your PC using the Nokia Modem Options software. See the Nokia PC Suite online help for more information. If you set the settings on both the phone and the PC, the PC settings will be used.

GPRS ICONS

The following icons appear in the upper left corner of the screen to show you the status of your GPRS connection.

Indicates an active GPRS connection, for example, when you are using the browser.

Indicates that the GPRS connection has been interrupted by a voice call or text message.

Data communication applications

For information on using a data communication application, refer to the documentation provided with the application.

If you use an IR connection, activate the IR connection in your phone by selecting **Settings > Connectivity > Infrared** from the menus. Also, make sure that the connection is active in your PC.

For better performance during an IR connection, place the phone on a stationary surface. Do not move the phone while the IR connection is active.

If you use the DKU-2 data cable:

1   Connect the cable to the USB port on your computer and to the Pop-Port™ connector on your phone.

2   Start using the data communications application on the computer.

> **Note:** Making or answering phone calls during a computer connection is not recommended as it might disrupt the operation.

• CALL SETTINGS

Automatic volume control

Automatic volume control automatically adjusts the phone earpiece volume according to the noise level in your environment and the volume of the speaker on the other end of the call. For example, if you are in a noisy environment, the volume is increased. If the person to whom you are speaking is speaking loudly, the volume is decreased.

Automatic volume control is not available if you are using a headset or other accessory.

FROM THE MENU

1   From the menus, select **Settings > Call settings > Automatic volume control**.

2   Select **On** to activate or **Off** to deactivate.

The default setting is **Off**.

DURING A CALL

> **Note:** Setting automatic volume control during an active call affects only the current call.

1   During a call, select **Options**.

2   Select **Auto volume on** to activate or **Auto volume off** to deactivate.

If you change the volume during an active call by pressing the **Volume up** or **Volume down** key, the phone volume level changes regardless of whether or not automatic volume control is activated.

When you end the call, the volume returns to the level set before automatic volume control was activated.

Call forwarding

Call forwarding tells your network to redirect incoming calls to another number.

Call forwarding is a network service and may not work the same in all networks. Contact your service provider for more information.

ACTIVATE CALL FORWARDING

1 From the menus, select **Settings > Call settings > Call forwarding** and one of the following:

Forward all voice calls—Forward all calls to the number you specify.

Forward if busy—Forward all calls when you are in a call.

Forward if not answered—Forward all calls to another number if you do not answer. You can also set a delay before forwarding takes place.

Forward if out of reach—Forward all calls when your phone is turned off or out of the coverage area.

Forward if not available—Forward all calls when you do not answer, your phone is busy or turned off, or out of the coverage area. You can also set a delay before forwarding takes place.

Forward all data calls—Forward all data calls to a data mailbox.

Cancel all call forwarding—Cancel any call forwarding options you may have set.

2 Select **Activate**.

3 Select the destination to which your calls will be forwarded.

4 Enter the number to which your calls, data, or other information will be forwarded, and select **OK**; or select **Find** to retrieve a number from contacts.

5 If required, select the delay time before the call is forwarded.

Your phone calls the network to activate the feature you have requested. The network sends a confirmation note when the feature has been activated successfully.

CANCEL CALL FORWARDING

1 From the menus, select **Settings > Call settings > Call forwarding**.

2 Select **Cancel all call forwarding**.

OR

Select one of the call forwarding options, and select **Cancel**.

> **Note:** Canceling all call forwarding may affect your ability to receive voice mail messages. Contact your service provider for specific details.

Anykey answer

Anykey answer allows you to answer an incoming call by briefly pressing any key except the **Power** key, the selection keys, and the **End** key.

From the menus, select **Settings > Call settings > Anykey answer > On** or **Off**.

Automatic redial

Occasionally, your network may experience heavy traffic, resulting in a *fast* busy signal when you dial. With automatic redial activated, your phone redials the number up to 10 times, and notifies you once the network is available.

From the menus, select **Settings > Call settings > Automatic redial > On** or **Off**.

1-touch dialing

You can turn the 1-touch dialing feature on and off. For more information, see "1-touch dialing" on page 73.

From the menus, select **Settings > Call settings > 1-touch dialing > On** or **Off**.

Call waiting

If supported by your service provider, call waiting notifies you of an incoming call even while you are in a call. You can accept, reject, or ignore the incoming call.

ACTIVATE OR DEACTIVATE

From the menus, select **Settings > Call settings > Call waiting > Activate** or **Cancel**.

CHECK STATUS

You can see whether call waiting is active, and for which type of calls.
From the menus, select **Settings > Call settings > Call waiting > Check status**.

USE CALL WAITING

1 During a call, press the **Talk** key to answer the waiting call.

The first call is put on hold.

2 Press the **End** key to end the active call.

Summary after call

You can display the time spent on a call when you hang up.

From the menus, select **Settings > Call settings > Summary after call > On** or **Off**.

Send my caller identity

You can prevent your number from being displayed on the receiving party's caller ID. This feature is a network service and works on a call-by-call basis. Contact your service provider for more information.

From the menus, select **Settings > Call settings > Send my caller ID > Set by network**, **Yes**, or **No**.

Select a line for outgoing calls

This is a network service. Check with your service provider for availability and a description of the feature.

1   From the menus, select **Settings > Call settings > Line for outgoing calls > Line 1** or **Line 2**.

    If you select **Line 2** but have not subscribed to this network service, you will not be able to place calls. However, calls on both lines can be answered regardless of the selected line.

    If supported by your SIM card, you can prevent the line selection by using the **Lock** option.

2   In the start screen, press and hold the **#** key to switch from one line to the other.

• PHONE SETTINGS

Language

From the menus, select **Settings > Phone settings > Phone language** and the desired language for the phone display.

Phone memory

You can check the amount of memory available in the phone and in the MultiMediaCard.

1   From the menus, select **Settings > Phone settings > Memory status > Handset** or **Memory card**.

    For the handset, you can view **Size**, **Free memory**, **Used memory**, **Contacts**,

Text messages, Multimedia msgs., Gallery, Organizer, and **Applications**. For the MultiMediaCard, you can view **Size, Free memory,** and **Used memory**.

2   Scroll through the list to view the memory associated with each item.

For more information, see "Shared memory" on page 3.

Automatic keyguard

You can set the keypad of your phone to lock automatically after a preset time delay (from 5 seconds to 60 minutes). When the preset delay expires, the keypad locks automatically.

When the keyguard is on, calls still may be possible to the official emergency number programmed into your phone. Enter the emergency number and press the **Send** key.

1   From the menus, select **Settings > Phone settings > Automatic keyguard > On** or **Off**.

2   If you selected **On**, at the **Set delay** prompt, enter the delay (in *mm:ss* format), and select **OK**.

Security keyguard

You can set the phone to ask for the security code when you unlock the keyguard.

1   From the menus, select **Settings > Phone settings > Security keyguard**.

2   Enter the security code, and select **OK**.

3   Select **On** to activate or **Off** to deactivate.

Cell info display

Cell info display is a network service and may not work the same in all networks. Contact your service provider for availability.

When this function is selected, your phone will indicate when it is used in a system cell based on microcellular network (MCN) technology. MCN technology increases the capacity of wireless networks in urban areas. The setting will remain in effect even if the SIM card is changed or the phone is switched off.

From the menus, select **Settings > Phone settings > Cell info display > On** or **Off**.

Welcome note

You can write a welcome note which shows up briefly on your display whenever you power up your phone.

Predictive text input cannot be used for entering welcome note text.

1   From the menus, select **Settings > Phone settings > Welcome note**.

2 Enter a note (up to 44 characters).

Press the ***** key to display and select from available special characters and smileys. For more information, see "Special characters and smileys" on page 28.

3 When you are finished, select **Save**.

System selection

You may be able to manually search for another network which has a roaming agreement with your home service provider.

From the menus, select **Settings > Phone settings > Operator selection** and one of the following:

Automatic—Your phone defaults to those settings which have been preset by your service provider.

Manual—Your phone searches for a network which has a roaming agreement with your service provider.

If **No system access** appears in the display, you will need to switch to **Automatic** mode, or insert another SIM card into the phone.

Confirm SIM service actions

This option allows you to request notification when your service provider makes changes to SIM-related services (such as activating GPRS service).

1 From the menus, select **Settings > Phone settings > Confirm SIM service actions**.

2 Select **Yes** to request notification or **No** to prevent notification.

Help text

Your phone displays brief descriptions for most menu items. When you arrive at a feature or menu, pause for about 15 seconds to allow the help text to appear. Select **More** to view all of the description (if necessary), or select **Back** to return to the menu.

You can turn help text on or off. The default setting is on.

From the menus, select **Settings > Phone settings > Help text activation > On** or **Off**.

Start-up tone

You can set your phone to play (or not to play) a start-up tone when the phone is switched on.

From the menus, select **Settings > Phone settings > Start-up tone > On** or **Off**.

• IM AND PRESENCE SETTINGS

Contact your service provider for the settings required for IM and presence. You may be able to receive IM and presence settings as a connection settings message. See "Connection settings service" on page 16.

Use this procedure to enter the settings manually.

1 From the menus, select **Settings > IM and my presence settings > Active IM and presence settings**.

2 Scroll to the set that you want to activate, and select **Activate**.

The service settings are activated for the selected set.

3 Select **Edit active IM and presence settings**, and enter the required settings from your service provider.

• ENHANCEMENT SETTINGS

The **Enhancement settings** menu is shown only if the phone is or has been connected to one of the compatible enhancements such as the headset or music stand.

Each compatible enhancement appears in the **Enhancement settings** menu only after it has been connected to the phone. Once an enhancement has been connected, it always appears in the menu even if it is not currently connected.

1 From the menus, select **Settings > Enhancement settings > Headset, Handsfree, Loopset, TTY/TDD, Music stand**, or **Charger**.

A list of options appears in the display.

2 Select the option of your choice and follow the prompts.

Headset options

Default profile—Choose the profile you wish to be automatically activated when a headset is connected.

Automatic answer—Calls are answered automatically after one ring when a headset is connected. Select **On** or **Off.**

Hands-free options

Hands-free options are available when the phone is connected to a car kit.

Default profile—Choose the profile you wish to use when your phone is connected to a car kit.

Automatic answer—Calls are answered automatically after one ring when a car kit is connected. Select **On** or **Off**.

Lights—Choose to keep the phone lights always on, or to shut off automatically after several seconds. Select **On** or **Automatic**.

Ignition sense—When the phone is connected to the full car kit, this feature prevents the phone from draining the car battery when the car ignition is off. Select **Ignition on** to automatically switch off the phone approximately 20 seconds after the car ignition is turned off. Select **Ignition off** to leave the phone on when the car ignition is turned off. This option is available only if the car kit has the ignition sense feature installed

Loopset options

Use loopset—Enable use of the LPS-4 mobile inductive loopset. Select **Yes** or **No**.

Default profile—Choose the profile you wish to be automatically activated when a loopset is connected.

Automatic answer—Calls are answered automatically after one ring when a loopset is connected. Select **On** or **Off**.

TTY/TDD options

Use TTY—Activates the TTY feature. Select **Yes** to activate TTY or **No** to deactivate.

Music stand options

Default profile—Choose the profile you wish to be automatically activated when your phone is connected to the music stand.

Automatic answer—Calls are answered automatically after one ring when the phone is connected. Select **On** or **Off**.

Lights—Choose to keep the phone lights always on, or to shut off automatically after several seconds. Select **On** or **Automatic**.

Charger options

Default profile—Choose the profile you wish to be automatically activated when your phone is connected to the charger.

Lights—Choose to keep the phone lights always on, or to shut off automatically after several seconds. Select **On** or **Automatic**.

• SECURITY SETTINGS

For information about security features, see "Phone security" on page 29.

• RESTORE FACTORY SETTINGS

You can reset some of the menu settings to their original values. However, data that you have entered or downloaded is not deleted. For example, names and numbers in contacts are not affected.

1   From the menus, select **Settings > Restore factory settings**.

2   Enter the security code (the default is 12345), and select **OK**.

A message appears in the display confirming that original settings have been restored.

11 Gallery (Menu 5)

You can save pictures, video clips, recordings, and ringing tones to folders in the gallery, and add new folders to the ones already there. You can download images and tones using MMS, mobile Internet sites, or Nokia PC Suite.

Your phone supports a digital rights management system to protect content that you have acquired. A piece of content, such as a ringing tone, can be protected and associated with certain usage rules, for example, the number of usage times or a certain usage period. The rules are defined in the content activation key that can be delivered with the content or separately, depending on the service provider. You may be able to update these activation keys. Always check the delivery terms of any content and activation key before acquiring them, as they may be subject to a fee.

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

Your phone has about 8 MB of memory for storing files in the gallery. This memory is *not* shared with other functions, such as contacts. If the phone displays a message that the memory is full, delete some existing files before proceeding. You can also use a compatible MultiMediaCard to add up to 256 MB of memory.

• FOLDERS

1 From the menus, select **Gallery**.

A list of folders is displayed. **Images**, **Video clips**, **Music files**, **Graphics**, **Tones**, and **Recordings** are preset in the phone. If there is a MultiMediaCard in the phone, a MultiMediaCard icon is also displayed.

2 Scroll to a folder, and select **Open** to view a list of the files in the folder.

OR

Select **Options** to access the following:

Delete folder—Delete a folder you have created. You cannot delete a preset folder.

Move—Move the selected folder into another folder. After selecting **Move**, scroll to another folder, and select **Options > Move here**. You cannot move a preset folder.

Rename folder—Rename a folder you have created. You cannot rename a preset folder.

Set password—Create a password (1–8 characters) for the MultiMediaCard, to

protect it against unauthorized use. This option is available only for the MultiMediaCard folder.

Change password—Change the MultiMediaCard password that you have created. This option is available only for the MultiMediaCard folder.

Delete password—Delete the MultiMediaCard password that you have created. This option is available only for the MultiMediaCard folder.

Rename mem. card—Enter a name for the MultiMediaCard. This option is available only for the MultiMediaCard folder.

Format mem. card—Delete all files and folders stored on the MultiMediaCard. This option is available only for the MultiMediaCard folder.

Details—Show the name, size, and date of creation of the selected folder.

Type of view—Select **List with icons**, **List**, or **Grid** to determine how the folders and the files within folders are displayed.

Sort—Sort the contents of the selected folder by name, date, format, or size.

Add folder—Create a new folder.

Memory status—Check the available memory for the phone handset or the MultiMediaCard.

Activation key list—View the list of available activation keys. You can delete activation keys if desired.

Downloads—Download more images, tones, or videos. Select **Graphic downloads**, **Tone downloads**, or **Video downloads**; then select a site. Selecting **More bookmarks** displays the list of bookmarks in the **Services** menu.

When you select **Downloads**, the phone tries to connect to the mobile Internet using your browser and the currently active set of gallery downloads. If the connection fails, you may need to activate another set or change the current settings. See "Set up for browsing" on page 135 for more information.

• FOLDER ITEMS

1 From the menus, select **Gallery**.

A list of folders appears in the display.

2 Scroll to a folder, and select **Open**.

A list of files appears in the display.

3 Scroll to a file, and select **Options**.

Depending on the type of file, some of the following options appear:

Play—Play a multimedia file.

Pause—Pause a multimedia file that is playing.

Zoom—Display a zoomed-in version of the image. Use the scroll keys to move around in the image.

Open—Open the selected file.

Delete—Delete the selected file.

Send—Send the selected file as a multimedia message or by Bluetooth or IR connection. The **Send** option may not be available if the selected file (either image or sound) is copyrighted.

Edit image—Start the image editor.

Move—Move the file to another folder.

Rename—Rename the selected file.

Mute audio—Mute a sound file.

Unmute audio—Unmute a muted sound file.

Set contrast—Adjust the contrast in the image.

Set as wallpaper—Set the image as wallpaper.

Set as ring tone—Use the tone as the ringing tone in the current profile.

Details—View details of the file, such as the name, time, and date the file was created.

Sort—Sort the files according to date, type, name, or size.

Delete all—Delete all items in the current Gallery folder.

Open in sequence—View all of the images in the folder sequentially as a slide show, or listen to each of the tones in sequence.

Type of view—Select **List with icons**, **List**, or **Grid** to determine how the folders and the files within folders are displayed.

Add folder—Create a new folder.

Memory status—Check the available memory for the phone handset or the MultiMediaCard.

Activation key list—View the list of available activation keys. You can delete activation keys if desired.

Activate content—Update the activation key of the selected file. This option is shown only if the file supports activation key updating.

• EDIT AN IMAGE

1   From the menus, select **Gallery**.

2   Select a folder that contains images, and select **Open**.

3   Scroll to an image, and select **Options > Edit image > Options**.

      Options include **Insert text**, **Insert frame**, **Insert clip-art**, and **Crop image**.

To insert text in the center of the image:

1   Select **Insert text**.

2   Enter text in the text editor, and select **OK**.

3   To change the appearance of the inserted text, select **Options > Font style**, **Font size**, **Font color**, or **Rotate**, and follow the prompts.

4   When you are satisfied with the appearance of the inserted text, select **OK**.

To put a frame around the image:

1   Select **Options > Insert frame**.

2   Scroll to one of the frame images in the **Graphics > Clip-arts** folder, and select **Options > Insert**.

3   When the image is displayed with the frame added, select **OK**.

To insert clip art in the image:

1   Select **Options > Insert clip-art**.

2   Scroll to an image in a folder containing images, and select **Options > Insert**.

      The image is displayed with the clip art added

3   Use the scroll keys to move the clip art up, down, left, and right on the image.

4   To change the size and shape of the clip art, select **Options > Rescale**, and use the scroll keys to move the bottom and right borders of the clip art.

5   To move the clip art, select **Options > Move**, and use the scroll keys to move the clip art within the image.

6   When you are satisfied with the size and position of the clip art, select **OK**.

To crop the image:

1   Select **Options > Crop image > Portrait size** or **Adjustable size**.

      The image appears with a marking box to indicate the part of the image that is being cropped.

2   Use the scroll keys to move the marking box up, down, left, and right on the image.

3   To change the size of the marking box, select **Options > Rescale**, and use the

scroll keys to move the bottom and right borders of the box.

4   To change the position of the marking box, select **Options > Move**, and use the scroll keys to move the box.

5   To toggle between **Rescale** mode and **Move** mode, press the **#** key.

6   When you are satisfied with the size and position of the marking box, select **OK**.

7   The portion of the image inside of the marking box appears in the display.

To save the edited image:

1   Select **Save**.

2   Enter a name for the image, and select **OK**.

3   Scroll to the folder where you want to save the image, and select **Options > Save**.

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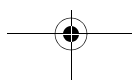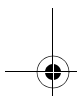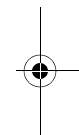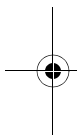
12 Media (Menu 6)

• CAMERA

You can take photos and record video clips with the built-in camera and adjust its settings. The camera lens is on the back of the phone, and the color display of the phone works as a viewfinder. The camera produces photos in JPEG format and video clips in H.263 (SubQCIF) format. After you have taken a picture or video, you can attach it to a multimedia message, and send it with MMS, save it as wallpaper in the standby mode, save it in a compatible PC using Nokia PC Suite software, and upload it to a Web address with the content image uploader. When you attach a picture to an entry in your list of contacts, the picture is displayed when your contact calls you.

If there is not enough memory to take a new photo, you need to free some by deleting old photos or other files in the gallery.

Take a photo

1   To open the camera viewfinder quickly with standard photo view, press the **Scroll up** key at the start screen; then press the **Scroll right** and **Scroll left** keys to portrait photo, night mode, or video.

OR

From the menus, select **Media > Camera** and one of the following:

Standard photo—Lets you take a photo in landscape orientation under normal lighting conditions.

Portrait photo—Lets you take a photo in portrait orientation that can be added to a name/phone number saved in contacts.

Night mode—Lets you take a photo in landscape orientation in dim lighting.

2   The live image appears on the display, and you can use the display as a viewfinder.

3   To use the self-timer, select **Options > Self-timer > Start**.

OR

To take a photo immediately, select **Capture**.

If the self-timer is running, the phone beeps repeatedly. When the photo is taken, a shutter sound is heard. The phone saves the photo in the **Images** folder of the **Gallery** menu. The saved photo is shown on the display.

4   Select **Back** to take another photo.

OR

Select **Delete** to delete the photo.

OR

Select **Options** and one of the following:

Zoom—Display a zoomed-in version of the photo. When a photo is zoomed, the photo is not stored permanently in the zoomed size. You cannot edit or send a zoomed photo. Select **Back** to display the image in normal size.

Send—Send the selected photo as a multimedia message or using IR or Bluetooth.

Attach to contact—Add the photo to an entry in the contact list. Scroll to the desired entry, and select **Attach**. This options is only available in portrait mode.

Rename—Rename the selected photo.

Open Gallery—Display the **Images** folder in the **Gallery**.

Set contrast—Increase or decrease contrast of the selected photo using the **Scroll right** and **Scroll left** keys.

Set as wallpaper—Set the photo as wallpaper.

Details—View details of the photo, such as the name, size, time and date the photo was taken, image resolution, file format, and copyright information.

Record a video clip

1   From the menus, select **Media > Camera > Video**.

The live image appears in the display.

2   To start the video, select **Record**.

While you are recording, the [image] indicator and the remaining recording time are shown at the top of the display.

3   Select **Pause** to pause the recording and **Continue** to resume the recording.

4   Select **Stop** to stop the recording.

The phone saves the recording in the **Video clips** folder of the **Gallery** menu.

5   Select **Back** to record another video.

OR

Select **Play** to view the video.

OR

Select **Options** and one of the following:

Delete—Delete the video clip.

Send—Send the video clip to another device as a multimedia message or using IR or Bluetooth connectivity.

Rename—Rename the video clip.

Open Gallery—Go to the **Video clips** folder in the gallery.

Mute audio or **Unmute audio**—Turn the sound on or off.

Set contrast—Increase or decrease contrast of the selected video using the **Scroll right** and **Scroll left** keys.

Details—View details of the selected video, such as name, size, time and date created, length, file format, and copyright information.

Settings

You can select the level of image quality, turn camera sounds on and off, and define a default title to be used when you save a photo.

From the menus, select **Media > Camera > Settings** and one of the following:

Image quality—Define file compression when saving the image. Select **High**, **Normal**, or **Basic**. **High** has the least file compression and provides the best image quality, but takes more memory.

Video clip length—Select **Default** or **Maximum**. The maximum is approximately 4 minutes depending on conditions. Only video clips that are default length or shorter can be sent in a multimedia message.

Camera sounds—Set the shutter and self-timer sounds to **On** or **Off**.

Default title—Define the title that will be used when saving a photo. If you select **Automatic**, the default title will be used. If you select **My title**, you can enter or edit a new title.

Image storage—Define the folder where photos or videos are stored. Select **Default folder** to use the default folder or **Other folder** to select the folder of your choice.

• MEDIA PLAYER

With the media player you can download, view, and play compatible images, audio and video files, and animated images from a variety of sources.

The media player allows you to play streaming videos and streaming audio from a network server. Streaming functionality is a network service and requires network support. Check the availability of these services, pricing, and tariffs with your network operator or the service provider whose service you wish to use. Service providers will also give you instructions on how to use their services.

From the menus, select **Media > Media player** and one of the following:

Open Gallery—Open the gallery. From the gallery, you can play stored audio and video files. See "Gallery (Menu 5)" on page 98.

Bookmarks—Open the list of bookmarks in the **Services** menu. See "Bookmarks" on page 138.

Go to address—Enter the address of a mobile Internet service, and select **OK**.

Media downloads—Download more graphics, tones, or videos to your phone. Download content only from sources you trust.

Streaming sett.—Set the connection settings for the media service. Contact your service provider for information about connection settings.

Set up the phone for a streaming service

For more information and for the appropriate settings, contact the network operator or service provider that offers the service that you want to use. You may receive the streaming settings as a connection settings message from the network operator or service provider that offers the service that you want to use. See "Connection settings service" on page 16.

To add and edit the settings with PC Suite, see the Nokia PC Suite online help.

To key in the settings manually:

1   From the menus, select **Media > Media player > Streaming sett. > Active connection settings**.

2   Scroll to the connection set you would like to activate, and select **Activate**.

3   Select **Edit active connection settings**.

    Select each of the settings one by one, and key in all the required settings according to the information you have received from your network operator or service provider.

• MUSIC PLAYER

Your phone includes a music player for listening to music or other tracks in MP3 or AAC format. You can transfer files from a PC to your phone through Nokia Audio Manager. To transfer music tracks from a compatible PC and manage the music tracks and track lists, see the instructions for the Nokia Audio Manager application in the Nokia PC Suite online help.

Music files stored in the **Music player** folder are automatically detected and added to the default playlist. Music files stored elsewhere, such as in a MultiMediaCard folder, must be defined in the playlist before you can listen to them.

You can listen to the sound files through a compatible headset or the phone loudspeaker.

You can make or answer a call while using the music player. During a call, the playback is paused.

Play music tracks

From the menus, select **Media > Music player**.

The details of the first track on the default track list are shown.

To play a track, scroll to the track that you want, and select **Play** or press the **Scroll right** key.

To adjust the volume level, use the volume keys on the side of the phone.

To stop the playing, select **Stop**, or press the **Scroll left** key.

To skip to the beginning of the next track, press the **Scroll down** key. To skip to the beginning of the previous track, press the **Scroll up** key twice.

To rewind the current track, press and hold the **Scroll up** key. To fast forward the current track, press and hold the **Scroll down** key. Release the key at the position you want.

⚠ **Warning:** Listen to music at a moderate level. Continuous exposure to high volume may damage your hearing.

Music player settings

From the menus, select **Media > Music player > Options** and one of the following:

Play options—Select **Random** to play the tracks on the track list in random order. Select **Repeat** to play the current track or the entire track list repeatedly.

Music downloads—Connect to a browser service related to the current track. This function is only available when the address of the service is included in the track.

Loudspeaker—Listen to the music player through the phone loudspeaker.

Headset—Listen to the music player through a compatible headset connected to the phone. When using a compatible headset, you can skip to the next track by pressing the headset key quickly. To stop the playing, press and hold the headset key.

Track list—View all the tracks available on the track list and play the desired track. To play a track, scroll to the desired track, and select **Play** or press the **Scroll right** key. Select **Options** to refresh the track list (for example, after adding new tracks to the list), and change the track list that is shown when you open the **Music player** menu if several track lists are available in the phone.

• RADIO

Your phone has an FM radio that also functions as an alarm clock radio. You can listen to the FM radio on your phone through the hands-free speaker or with a headset. For FM stereo, connect a compatible music stand or stereo headset to the connector on the bottom of the phone.

The FM radio uses the wire of the headset as an antenna. A compatible headset must be attached to the device for the FM radio to function.

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

Note: Listen to music at a moderate level. Continuous exposure to high volume may damage your hearing.

Turn the radio on and off

1 Connect the phone to a compatible headset or music stand.

2 From the menus, select **Media > Radio**.

3 To turn off the radio, press and hold the **End** key.

Use the radio

With the radio on, select **Options** and one of the following:

Turn off—Turn off the radio.

Save channel—Save the current station to one of 20 locations.

Automatic tuning—Briefly press the **Scroll up** key or the **Scroll down** key to start the channel search up or down. Select **OK** when a channel is found.

Manual tuning—Press the **Scroll up** key or the **Scroll down** key to search in increments of 0.05 MHz.

Set frequency—Manually enter the frequency of a known radio station.

Delete channel—Delete a saved channel.

Rename—Enter a new name for the saved channel, and select **OK**.

Loudspeaker or **Headset**—Listen to the radio through the speakerphone or through the headset.

Mono output or **Stereo output**—Listen to the radio in monaural mode (default) or in stereo. Stereo output is available through a stereo enhancement.

To set the radio frequency, press the ***** key and use the keypad to enter the frequency of a known radio station. To tune the radio manually, press the **#** key; then press the **Scroll up** key or the **Scroll down** key to search in increments of 0.5 MHz.

To adjust the radio volume, press the **Volume up** and **Volume down** keys.

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

When you place or receive a call, the radio automatically mutes. Once the call is ended, the radio switches back on.

Save a radio channel

You can save a preset station to any one of 20 locations in memory, and then tune to that station by pressing the **Scroll up** key or the **Scroll down** key with the radio on.

1   With the radio on, press and hold the **Scroll up** key or the **Scroll down** key to start the channel search.

    Searching stops when a channel is found.

2   To save the channel, select **Options > Save channel**.

3   Enter a name for the channel, and select **OK**.

4   Select an **(empty)** location to save the channel.

To save an FM station quickly to 1–9 memory locations, press and hold the corresponding number key while the radio is playing. Then, enter the name of the channel, and select **OK**.

• VOICE RECORDER

You can make a short (up to 3 minutes) recording and save it to the **Recordings** folder or another folder in the Gallery. You can also record your phone calls.

Make a recording

1   From the menus, select **Media > Voice recorder**.

2   To start the recording, select **Record**.

3   Hold the phone in the normal position near your ear, and record your message.

4   To stop the recording, select **Stop**.

    The recording is saved in the **Recordings** folder of the Gallery.

5   To replay the latest recording, select **Play last recorded**.

6   To send the latest recording as a multimedia message or by IR or Bluetooth connectivity to a compatible phone, select **Send last recorded**.

Record a phone call

During a call, select **Options > Record**. To stop recording, select **Stop**.

While the call is being recorded, all parties to the call can hear a faint beeping sound approximately every 5 seconds.

The recording is saved in the **Recordings** folder of the Gallery.

Define a storage folder

You can select a folder other than **Recordings** as the default folder to store your voice recordings.

1 From the menus, select **Media > Voice recorder > Select memory**.

2 Scroll to a folder in the gallery, and select **Options > Select**.

Manage recordings

1 From the menus, select **Media > Voice recorder > Recordings list**.

2 Scroll to the **Recordings** folder or the folder that you have defined for storing recordings, and select **Open**.

3 Use the options available in the Gallery. See "Folder items" on page 99.

• MEDIA EQUALIZER

The equalizer enhances the sound quality when using the music player by amplifying or attenuating frequency bands. There are five preset equalizer settings (**Normal**, **Pop**, **Rock**, **Jazz**, and **Classical**) and two customizable settings.

Activate an equalizer set

From the menus, select **Media > Media Equalizer**, scroll to the desired setting, and select **Activate**.

Create a custom equalizer set

1 From the menus, select **Media > Media Equalizer**.

2 Scroll to **Set 1** or **Set 2**, and select **Options > Edit**.

The selected set appears in the display with the bar on the far left highlighted.

The bars adjust frequencies, from the lowest (the leftmost bar) to the highest (the rightmost bar). The higher the indicator on a particular bar, the more that frequency is amplified.

3 To adjust the lowest frequency, use the **Scroll up** and **Scroll down** keys to move the indicator up and down on the bar.
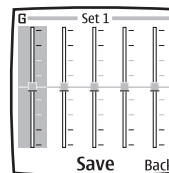
4 To adjust other frequencies, use the **Scroll left** and **Scroll right** keys to move to the other bars.

5 Repeat steps 3 and 4 to adjust the setting for each frequency.

6 When you are finished, select **Save**.

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

8 To activate the setting, select **Activate**.
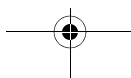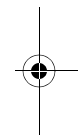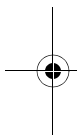
13 Organizer (Menu 7)

Your phone has many useful features for organizing your everyday life, including an alarm clock, a calendar, and a to-do list.

• ALARM CLOCK

The alarm clock is based on the internal clock of your phone. It sounds an alert or turns on the built-in FM radio at the time you specify. The alarm works even if the phone is off, as long as there is enough power in the battery. When the alarm is triggered, the clock radio alarm stays on until the radio is turned off.

Select an alarm tone

From the menus, select **Organizer > Alarm clock > Alarm tone** and one of the following:

Standard—Select the default alarm tone.

Radio—Use the radio as an alarm. If you select this option, connect the headset to the phone. The phone uses the last channel you listened to as an alarm tone. If the headset is not connected, the default alarm tone is used.

Ringing tone—Select an alarm tone from the ringing tone list.

Open Gallery—Select a sound clip from a gallery folder to use as an alarm. Open a folder that contains tones, scroll to the tone you want, and select **Options > Select**.

Set an alarm

NOT ALREADY SET

1   From the menus, select **Organizer > Alarm clock > Alarm time**.

2   Enter the time for the alarm in *hh:mm* format, and select **OK > am** or **pm**.

 Alarm on appears briefly in the display, and appears on the start screen.

ALREADY SET

1   From the menus, select **Organizer > Alarm clock > Alarm time > On**.

2   Enter the time for the alarm in *hh:mm* format, and select **OK > am** or **pm**.

 Alarm on appears briefly in the display, and appears on the start screen.

REPEAT ALARM

You can set the alarm clock to alert you on selected days of the week.

1 From the menus, select **Organizer > Alarm clock > Repeat alarm > Repetition days**.

2 Scroll to each desired day, and select **Mark**.

OR

To mark all days, select **Options > Mark all**.

3 When you are finished, select **Done**.

Turn off an alarm setting

From the menus, select **Organizer > Alarm clock > Alarm time > Off**.

Alarm off appears briefly in the display.

When the alarm sounds

Your phone beeps, vibrates, and the display lights up. **OK** and **Snooze** appear in the bottom of the display.

WITH THE PHONE ON

Select **OK** to shut the alarm off.

OR

Select **Snooze**. The alarm stops for 10 minutes, and **Snoozing** appears in the display.

If you do not press a key, the alarms stops (snoozes) for 10 minutes, then sounds again.

WITH THE PHONE OFF

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.

• CALENDAR

The calendar keeps track of reminders, calls you need to make, meetings, and birthdays. It can even sound an alarm for any of these events.

Open the Calendar

From the menus, select **Organizer > Calendar**.

OR

Press the **Scroll right** key at the start screen.

After a brief pause, the month view of the calendar appears in the display with the current date highlighted. You can move to another date by using the four-way scroll keys like a joystick.

Month view

The month view provides an overview of the selected month and weeks. It also allows you to jump to a specific date. Any days or dates that appear in bold font contain calendar notes such as a meeting or reminder.

Month view

Week view

The week view displays one week at a time, with each day divided into one-hour blocks.

In the month view, select **Options > Week view**.

To return to the month view, select **Back**.
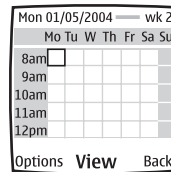
Week view

Calendar settings

In either the month view or the week view, select **Options > Settings** and one of the following:

Set the date—Enter the current date, and select **OK**.

Set the time—Enter the current time, and select **OK >am** or **pm** (if required).

Time zone—Select your time zone.

Date format—Select the format for the date that is displayed in the start screen.

Date separator—Select the separator (period, slash, hyphen, or space) for the date that is displayed in the start screen.

Time format—Select 12-hour or 24-hour.

Week starts—Select the first day of the week (Saturday, Sunday, or Monday). This selection affects both the month view and the week view.

Auto-delete—Set the phone to delete calendar notes automatically after a day, a week, or a month, or to never delete notes. Even if you set the phone for automatic deletion, repeating notes such as birthdays are not deleted.

Go to a date

1 In either the month view or the week view, select **Options > Go to date**.

2 Enter the date (for example, 01/05/2004), and select **OK**.

The monthly view appears in the display with the jump date highlighted.

Make a calendar note

You can choose from five types of notes: **Meeting**, **Call**, **Birthday**, **Memo**, and **Reminder**. Your phone asks for further information depending on which note you choose. You also have the option to set an alarm for any note that you select.

1 Go to the date for which you want to make a note.

See "Go to a date" on page 115 for more information.

2 From the monthly view with the go to date highlighted, select **Options > Make a note** and one of the following:

Meeting prompts you to enter a subject, location, and then a start and end time. You are then given the option to set an alarm, with or without an alarm tone.

Call prompts you to enter a phone number, a name, and the time. You are then given the option to set an alarm, with or without an alarm tone.

Birthday prompts you to enter the person's name, and year of birth. You are then given the option to set an alarm, with or without an alarm tone.

Memo prompts you to enter a subject and a start and end date. You are then given the option to set an alarm, with or without an alarm tone.

Reminder prompts you to enter the subject you wish to be reminded about. You are then given the option to set an alarm, with or without an alarm tone.

3 Enter the information requested by the prompts.

View calendar notes (the day view)

After you have created some calendar notes, you can view them as follows:

1 From the menus, select **Organizer > Calendar**.

After a brief pause, the monthly view appears in the display with the current date highlighted. Any dates that contain calendar notes are in bold.

2 Use four-way scrolling to go to the date containing the note.

3 Select **View**.

The headers of any notes you have for the day appear in a list format.

4 Scroll to the desired note, and select **View**.

The body of the note appears in the display.

Calendar note options

While viewing the header or the body of a note, select **Options** and one of the following:

Make a note—Make another note for the selected date (not available when viewing the body of a note).

Delete—Delete the note.

Edit—Edit the note (not available when viewing the body of a note).

Move—Move the note to another date on your calendar.

Repeat—Make the note recur on a regular basis (daily, weekly, biweekly, monthly, and yearly).

Go to date—Jump to another date on your calendar (not available when viewing the body of a note).

Send note—Send the note to another device using IR or Bluetooth connectivity, as a text or multimedia message or as a note to another compatible phone calendar.

Copy—Copy the note. You can then paste the note to another date.

Settings—Set the date and time, date and time format, the day each week starts, and whether you want your notes to autodelete after a specified time.

Go to to-do list—Takes you to the to-do list for today's date.

When a note alarm sounds

The phone beeps and displays the note. When a call note is displayed, you can call the displayed number by pressing the **Talk** key.

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

To stop the alarm and view the note, select **View**. Select **Snooze**; the phone sounds an alarm again after 10 minutes.

Send a calendar note to another device

1   From the menus, select **Organizer > Calendar**.

   After a brief pause, the monthly view appears in the display. Days containing notes are in bold font.

2   Jump or scroll to the date containing the note you wish to send, and select **View**.

3   Scroll to the note you wish to send, and select **Options > Send note** and one of the following:

   Via Infrared—Go to step 4.

   Via calendar—Go to step 5.

   Via text message or **Via multimedia**—Go to step 6.

   Via Bluetooth—Go to step 9.

4   If you select **Via Infrared**, align the IR ports of both devices.

   Ensure the other device is set to receive data using IR. For more information on enabling IR in the receiving device, refer to the user guide for the receiving device.

   The note is sent.

5   If you select **Via calendar**, enter the number for the recipient (or select **Find** to retrieve a number from contacts), and select **OK**.

   The note is sent.

6   If you select **Via text message** or **Via multimedia**, the note appears in the display.

7   Select **Send**.

8   Enter the number for the recipient (or select **Find** to retrieve a number from contacts), and select **OK**.

   The note is sent.

9   If you select **Via Bluetooth**, the phone automatically activates Bluetooth connectivity and searches for devices with active Bluetooth connectivity within range.

10 Select the desired device and follow the prompts.

   See "Bluetooth connectivity" on page 84 for more information.

Receive calendar notes from another device

When you receive a calendar note, your phone displays **Calendar note received**. You can then save the note in your calendar if desired, and set an alarm for any date and time.

1   When your phone displays **Calendar note received**, select **Show**.

    The text of the note appears in the display.

2   Press the scroll keys to view the entire message, if necessary.

3   To save the calendar note, select **Options > Save**.

    OR

    To discard the calendar note, select **Options > Discard**.

• TO-DO LIST

Use the to-do list feature to keep track of your tasks. You can save a note for a task, select a priority level for the note and mark it as done when you have completed it. You can sort the notes by priority or by date.

Add a to-do note

1   From the menus, select **Organizer > To-do list**.

2   If there are no notes, select **Add note**.

    OR

    If there are notes, select **Options > Add**.

3   Enter the subject of the to-do note, and select **Save**.

4   Select either **High**, **Medium**, or **Low** priority.

    The to-do note is saved. The phone automatically sets the deadline.

View a to-do note

1   From the menus, select **Organizer > To-do list**.

2   Scroll to a to-do note, and select **View**.

    The to-do note appears in the display.

Options while viewing to-do notes

Select **Options** while viewing the header or body of a particular note and the following options appear:

Add—Add another note (available only in header view).

Deadline—Set a deadline for the note (available only in body view).

Delete—Delete the note.

Mark note as done—Mark a note or task as complete; no more reminders will follow.

Sort by deadline—Sort the notes according to their deadline.

Send—Send the note to another device using IR or Bluetooth, as a text or multimedia message, or as a calendar note to another compatible phone.

Edit priority—Change the priority to high, medium, or low (available only in body view).

Go to calendar—Leave the to-do list, and go to the calendar.

Save to calendar—Save the to-do note to a date on your calendar.

Delete all notes—Delete all the to-do notes in the list (available only in header view).

• NOTES

You can use the notes application to write and send notes to compatible devices using IR or Bluetooth or as a text message or multimedia message.

Make a note

1   From the menus, select **Organizer > Notes**.

2   If there are no notes, select **Add note**.

    OR

    If there are notes, select **Options > Make a note**.

3   Enter the text of the note.

4   While entering text, select **Options** to access the following:

    Insert time & date—Add the current time and date to the note.

    Close—Close the entry screen and return to the notes list.

    Insert smiley—Insert an "emotional icon" in the note.

    Insert word—Enter a word and insert it into the note. Available only when predictive text is on.

    Insert symbol—Insert a special character into the note. Available only when predictive text is on.

    Predictive text—Turn predictive text on or off. See "Predictive text input" on page 27 for more information.

5   When you are finished, select **Save**.

Send a note

1   HIghlight the note you want to send, and select **Options > Send note > Via infrared**, **Via text message**, **Via multimedia**, or **Via Bluetooth**.

2   Follow the prompts to send the note.

• WALLET

The wallet feature allows you to store personal information like debit and credit card information to an encrypted area of phone memory. This information can then be used to make secure online purchases. Wallet purchases can also utilize digital signatures enabled by a security module in the SIM card (if present) for signing and verifying transactions. Online purchases and digital signature capabilities are dependent upon your service provider.

You can also store important information in a wallet personal note. Security features such as a password and data encryption make it ideal for storing personal information such as PIN codes and other sensitive data.

To protect against unauthorized use, wallet requires a code to be entered each time it is accessed.

If you do not use the wallet for 5 minutes, it is automatically closed.

Create a wallet code

The first time you access wallet, you will be asked to create a personalized wallet code. The wallet code can be 4–10 digits in length.

1   From the menus, select **Organizer > Wallet**.

2   At the prompt, enter the 4–10 digit code of your choice, and select **OK**.

3   Enter the same code again for verification, and select **OK**.

> **Note:** Create a code that is unique, yet easy to remember. This will be your key to using wallet features in the future. Also, keep your wallet code in a secret place, separate from your phone.

> **Note:** If you enter an incorrect wallet code three times in succession, you cannot access wallet for 5 minutes.

Change the wallet code

1   From the menus, select **Organizer > Wallet**.

2   At the prompt, enter your wallet code, and select **OK > Settings > Change code**.

3   Enter the original wallet code, and select **OK**.

4 Enter the new wallet code, and select **OK**.

5 Enter the new wallet code again for verification, and select **OK**.

A message appears in the display confirming your change.

Reset the wallet code

If you forget the wallet code and wish to erase all the information stored in wallet, follow these steps.

> ⚠ **Warning:** Once you reset the wallet code and clear the contents of wallet, all of the information is deleted. You must manually enter the information to restore it.

1 At the start screen, enter ***#7370925538# (*#res wallet#)**.

A message appears asking if you want to clear your wallet content and code.

2 If you want to permanently delete your wallet code and its contents, select **Yes**.

3 Enter your security code, and select **OK**.

Your wallet code and content are erased.

Wallet menu

1 From the menus, select **Organizer > Wallet**.

2 At the prompt, enter your wallet code, and select **OK** and one of the following:

Wallet profiles—Create card combinations for different services.

Cards—Save personal card information. See "Create a wallet card" on page 121.

Tickets—Save notifications of e-tickets that you have bought through a mobile service.

Receipts—Save receipts for mobile purchases.

Personal notes—Save any personal information that you want to protect with the wallet PIN code.

Settings—Set and change the wallet settings.

- **Change code**—Change the wallet code.
- **RFID**—Set the radio frequency identification (RFID) code. The RFID technology helps to securely conduct commerce transactions with your phone. You can enter the **RFID code** and the **RFID type**.

Create a wallet card

Wallet supports several categories of cards.

1   Access the wallet, and select **Cards** and one of the following:

Payment cards—for credit and debit cards.

Loyalty cards—for membership cards.

Access cards—for personal user names and passwords to online services.

User info cards—for customized personal preferences for online services.

Address cards—for contact information such as delivery and billing addresses.

2   If there are no cards in that category, select **Add new.**

OR

If there are cards, select **Options > Add new** and follow the prompts.

3   When you are finished, select **Done.**

If supported by your service provider, you can also receive card information as a message. You are notified which category the card belongs to. Save or discard the received card. You can view and rename the saved card, but you cannot edit it. Contact your service provider for more information.

Compose a personal note

Wallet can store up to 30 personal notes, such as passcodes or other sensitive data. Your notes are protected by the wallet security feature.

1   Access the wallet, and select **Personal notes.**

2   If there are no notes in the list, select **Add new.**

OR

If there are notes in the list, select **Options > Add new.**

3   Compose your note, and select **OK.**

4   Enter a title for the note, and select **OK.**

Your note is saved.

Note options

While viewing note headers, select one of the following:

View—View the contents of the selected note.

Options > Edit—Edit the contents of the selected note.

Options > Add new—Compose and save a new note.

Options > Sort—Sort the list of notes by name or date.

Options > Delete—Delete the selected note.

Options > Delete all—Delete all notes.

While viewing the contents of a note, select one of the following:

Edit—Edit the note.

Options > Send via text msg.—Send the note to a compatible phone using SMS.

Options > Copy to calendar—Copy the note to any date on your calendar.

Options > Use detail—Capture any numbers within the note. The number can then be saved to contacts, used to place a call, or you can send a message to the number.

Options > Delete—Erase the note.

Create a wallet profile

When you have saved your personal card details, you can combine them into a wallet profile. You can use the profile to retrieve wallet data from different cards while browsing.

1   Access the wallet, and select **Wallet profiles**.

2   If there are no wallet profiles, select **Add new**.

    OR

    If there are wallet profiles, select **Options > Add new**.

3   Respond to each of the following prompts:

    Select payment card next—Select a card from the payment card list.

    Select loyalty card next—Select a card from the loyalty card list.

    Select access card next—Select a card from the access card list.

    Select user info card next—Select a card from the user info card list.

    Select billing address next—Select an address from the address card list.

    Select shipping address next—Select an address from the address card list.

    Select receipt delivery address next—Select an address from the address card list.

    Select receipt delivery method next—Select either **To phone number** or **To e-mail address**.

    Wallet profile name—Enter a name for the profile.

Guidelines for making purchases with wallet

To shop, access the desired service site that supports wallet. See "Sign on to the mobile Internet" on page 135. The service must support the Electronic Commerce Modeling Language specification.

Choose the product you want to buy and read all information carefully.

When you indicate that you want to buy an item, the phone asks whether you want to use wallet, and asks for your wallet PIN code.

Select the card you want to use from the payment cards list. The phone automatically fills in the credit card information or the wallet profile.

Approve the purchase, and the information is forwarded. You may receive an acknowledgement or a digital receipt.

To close the wallet, select **Close wallet**.

> **Note:** If you have accessed or tried to access confidential information requiring passwords, such as a bank account, empty the phone cache after each use. See "Cache memory" on page 142.

• SYNCHRONIZATION

The phone synchronization feature is a network service that allows you to synchronize the calendar, contacts, and notes in your phone with a remote Internet server or a compatible PC. If you have saved data in the remote Internet server, you can synchronize your phone by starting the synchronization from the phone.

You can also synchronize your phone contacts, calendar, and notes to correspond with the data of a compatible PC by starting the synchronization from the PC. You must install Nokia PC Suite on your PC to use this feature. See "Nokia PC Suite" on page 14 for more information.

Contacts in your SIM card will not be synchronized.

Answering an incoming call during synchronization will end synchronization and you will need to restart it.

> **Note:** This feature must be supported by your service provider. For more information on availability and synchronization service settings, contact your service provider.

Save settings

You may receive the synchronization settings as a settings message or you may need to enter the synchronization settings manually.

SAVE SETTINGS RECEIVED AS A SETTINGS MESSAGE

When you receive the synchronization settings as a settings message, **Synchronization settings received** is displayed.

Select **Options** and one of the following:

Details—View the received settings first.

Save—Save the synchronization settings.

Discard—Discard the synchronization settings.

SAVE SETTINGS MANUALLY

You need to activate the set where you want to save the synchronization settings. A set is a collection of settings required to make a connection to a service. Contact your service provider for the settings.

1 From the menus, select **Organizer > Synchronization > Settings > Active Internet sync. settings**.

2 Scroll to the set you wish to activate, and select **Activate**.

3 Select **Custom. active Internet sync. sett.**; then select each of the following, and enter the required settings from your service provider:

 Settings' name—Rename the synchronization setting, and select **OK**.

 Data to be synchronized—Scroll to **Contacts**, **Calendar**, or **Notes**, and select **Mark** to synchronize that type of data. You can mark one, two, or all three types. Select **Unmark** to prevent synchronization. Select **Done** to save the changes.

 Database addresses—Select **Contacts database**, **Calendar database**, or **Notes database**, enter the address of the remote Internet server database, and select **OK**. You can provide addresses for one, two, or all three databases.

 User name—Enter the user name, and select **OK**. (Contact your service provider, if necessary, for this information.)

 Password—Enter the password, and select **OK**. (Contact your service provider, if necessary, for this information.)

 Synchronization server—Enter the name of the server, and select **OK**.

 Connection settings—Define connection settings required for synchronization. Select each of the settings, and key in the required values. Contact your service provider for the settings.

Synchronize with a remote Internet server

If you have saved data in the remote Internet server, you can synchronize your phone by starting the synchronization from your phone. Once you have customized and selected the appropriate synchronization settings, you are ready to synchronize data. (See "Save settings" on page 124 or "Save settings manually" on page 125 for more information.)

SYNCHRONIZE DATA

1 From the menus, select **Organizer > Synchronization > Settings > Active Internet sync. settings**.

2 Scroll to the set you want to activate, and select **Activate**.

The synchronization settings may differ from the service settings required for browsing. After synchronizing, change your active service settings back to the previous ones if you want to use other services later.

3   If you have not already done so, mark the data to be synchronized.

See step 3 of the procedure in "Save settings manually" on page 125 for more information.

4   From the menus, select **Organizer > Synchronization > Synchronize**.

Synchronization begins.

Depending on the type of connection you are using to synchronize data, connecting or initializing messages may appear.

Synchronizing for the first time or after an interrupted synchronization may take time up to 30 minutes, if contacts or calendar are full.

STOP SYNCHRONIZATION

1   To stop synchronization, select **Quit**, or press the **End** key.

essage appears.

2   At the **Quit synchronization?** prompt, select **OK**.

HANDLE CALLS DURING SYNCHRONIZATION

During synchronization, outgoing calls are not possible. Incoming calls can still be received, and can be handled in one of the following ways:

- To reject the incoming call, press the **End** key. Synchronization continues.
- To answer the incoming call, press the **Talk** key. Synchronization is interrupted and a **Synchronization suspended** message appears.

Once the incoming call is ended, a **Start synchronization again?** message appears. Selecting **Yes** starts synchronization over from the beginning.

Synchronize with your PC

You can synchronize the data in contacts, calendar, and notes to correspond with the data of your PC by starting the synchronization from your PC.

To synchronize data from your PC, use either an IR or Bluetooth connection or a data cable. You also need the Nokia PC Suite software installed on your PC.

Start the synchronization from your PC using Nokia PC suite. For more information, see the Nokia PC Suite online help. After synchronizing, the data in the phone and in the PC are the same.

14 Applications (Menu 8)

Your phone supports J2ME Java applications. You will find some Java applications and games pre-installed on your phone. Also, you can manage and download new applications and games from your service provider.

Running some applications and games may consume the battery faster. You may need to connect the phone to the charger.

GAMES

Challenge yourself or a friend to one of the fun games in your phone!

From the menus, select **Applications > Games** and one of the following:

Select game—Select a game or enter a game option list. See "Game options" on page 127 for more info on game options.

Game downloads—Connect to game downloads on the mobile Internet using your browser.

Memory—Check the available memory for games and game related applications.

App. settings—Turn game sounds, lights, and shakes on or off.

Start a game

1 From the menus, select **Applications > Games > Select game**.

2 Scroll to a game or game set, and press the **Talk** key or select **Open**.

   If the selection is a single game, the game starts. Otherwise, a list of games within the selected game set appears in the display.

3 To start a single game, scroll to the desired game, and press the **Talk** key or select **Open**.

If a game uses the whole display area, selection keys such as **Options** do not appear in the display. Press the **Left selection** key or the **Right selection** key to access options for the game.

Game options

While viewing the games list, select **Options** to display the following options:

Delete—Delete the game.

Details—Display details of the game.

Update version—Check if a new version of the game is available for download.

Web page—Get more information or additional data from a mobile Internet page. This feature is shown only if it is supported by the network and a mobile internet address has been provided by the game.

App. access—Choose whether the game should be allowed to access the network. You can require that the game ask every time it tries to access the network, ask only the first time, always access the network without asking, or never access the network.

Connect via—Some games need specific service settings. Your phone is set to use as default the service settings for the browser.

Game downloads

From the menus, select **Applications > Games > Game downloads** and one of the bookmarks displayed. To access the list of bookmarks in the **Services** menu, select **More bookmarks**.

After a brief pause, the phone connects to the Web pages using the currently active set of browser settings.

If the connection fails, you may enter the **Services** menu and activate another set of service settings. See "Set up for browsing" on page 135.

When downloading a game, it may be saved in the **Collections** menu instead of the **Games** menu.

Game memory

You can view the amount of memory available for games and applications.

From the menus, select **Applications > Games > Memory**.

Game settings

You can turn game sounds, lights, and vibration on or off.

1   From the menus, select **Applications > Games > App. settings**.
2   Select **Application sounds** or **Application shakes > On** or **Off**.
    OR
    Select **Application lights > App. defined** or **Default**.

• APPLICATIONS

Start an application

1   From the menus, select **Applications > Collection > Select application**.

2 Scroll to an application or an application set, and press the **Talk** key or select **Open**.

If the selection is a single application, the application starts. Otherwise, a list of applications within the selected application set appears in the display.

3 To start a single application, scroll to the desired application, and press the **Talk** key or select **Open**.

Application options

While viewing the application list, select **Options** to display the following options.

Delete—Delete the application or application set from your phone. If you delete a pre-installed application or application set, you may be able to download it again from **www.nokia.com/us**.

Details—Shows additional information about the application.

Update version—Check if a new version of the application is available for download.

Web page—Get further information or additional data for the application from a mobile Internet page. This feature must be supported by a service provider. It is only shown if a mobile Internet address has been provided with the application.

App. access—Choose whether the application should be allowed to access the network. You can require that the application ask every time it tries to access the network, ask only the first time, always access the network without asking, or never access the network.

Connect via—Some applications need specific service settings. Your phone is set to use as default the service settings for the browser.

Download applications

➥ **Note:** Only install sources that offer adequate protection against harmful software. Downloading applications is a network service. Contact your service provider for more information

Your phone supports J2ME Java applications. Make sure that the application is compatible with your phone before you download it. You can download new Java applications in different ways.

When you download games or applications, games may be saved in the **Applications** menu and applications may be saved in the **Games** menu.

APPLICATION DOWNLOADS

1 From the menus, select **Applications > Collection > App. downloads**.

After a brief pause, the list of available browser bookmarks appears in the

display.

2 Select **More bookmarks** to access the list of browser bookmarks in your **Services** menu.

3 Select the bookmark that contains the application you wish to download.

After a brief pause, you are connected to the Web page.

See "Navigate the mobile Internet" on page 136 for information on browsing Web pages.

If the connection fails, you may enter the **Services** menu and activate another set of service settings. See "Set up for browsing" on page 135.

DOWNLOAD LINKS

From the menus, select **Services > Download links > App. downloads** and one of the sites from the list.

PC SUITE

Use the Nokia Application Installer from PC Suite to download the applications into your phone. See the Nokia PC Suite online help.

View memory status for applications

You can view the size of memory available for game and application installations.

From the menus, select **Applications > Collection > Memory**.

• CALCULATOR

Basic calculations

The calculator adds, subtracts, multiplies, divides, calculates the square and the square root, and converts currency values.

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

1 From the menus, select **Applications > Extras > Calculator**.

2 In the calculator screen, enter the first number in the calculation.

Press the **#** key for a decimal point if necessary.

3 To perform an arithmetic calculation, press the ***** key to cycle through the add (+), subtract (-), multiply (*), and divide (/) characters, and pause briefly to select the displayed character.

OR

To perform a square or square root calculation, select **Options > Square** or

Square root.

4   For an arithmetic calculation, enter the second number in your calculation, and select **Equals**.

The completed calculation appears in the display.

Currency conversion

You can convert foreign currency to domestic, or vice versa directly from the start screen.

1   At the start screen, enter a currency amount to convert.

2   Select **Options** and one of the following:

To home—Converts foreign currency to domestic currency.

To foreign—Converts domestic currency to foreign currency.

If you have not done so already, you are prompted to enter the exchange rate.

3   Enter the exchange rate, using the **#** key to insert a decimal if needed, and select **OK**.

The converted amount appears in the display.

Edit the exchange rate

1   From the menus, select **Applications > Extras > Calculator > Options > Exchange rate** and one of the following:

Foreign units in home units—Enter the number of home units it takes to make one unit of foreign currency.

Home units in foreign units—Enter the number of foreign units it takes to make one unit of your home currency.

2   Enter the exchange rate, and select **OK**.

• COUNTDOWN TIMER

The countdown timer is like an egg-timer or the timer on your microwave oven. You can enter a specified time (up to 99 hours and 59 minutes), and when the time runs out, your phone sounds an alarm.

The countdown timer only works when the phone is on. Once you turn off your phone, the timer is no longer active.

Set the timer

1   From the menus, select **Applications > Extras > Countdown timer**.

2   At the prompt, enter the time in *hh:mm:ss* format, and select **OK**.

3 Enter a note for the timer, and select **OK**.

The timer begins running. The ⬛ icon appears in the upper left corner of the start screen.

Change the time

After you have set the timer, you can change the time.

1 From the menus, select **Applications > Extras > Countdown timer > Change time**.

2 Enter the new time in *hh:mm:ss* format, and select **OK**.

3 Leave the note as it was, or enter a new note, and select **OK**.

The timer begins running.

When the alarm sounds

When the time runs out, your phone sounds an alarm and displays the timer note.

Press any key during the alarm to stop the timer, or select **Restart** to start the timer again.

If you do not respond to the timer alert, it expires automatically after 30 seconds.

Stop the timer before the alarm sounds

From the menus, select **Applications > Extras > Countdown timer** > **Stop timer**.

Timer stopped appears in the display.

• STOPWATCH

Your phone has a stopwatch that can be used to track time at sporting events or other occasions. The stopwatch displays time in hours, minutes, seconds, and fractions of a second: *hh:mm:ss.ss*

While the stopwatch is running, if you press the **End** key and return to the start screen, the clock continues to run in the background, and ⏱ appears in the upper left corner of the screen.

Using the stopwatch consumes the battery and reduces the operating time of the phone. Be careful not to let it run in the background when performing other operations with your phone.

Measure time

1 From the menus, select **Applications > Extras > Stopwatch > Split timing > Start**.

The running time appears on the screen.

2 To stop timing, select **Stop**.

3 To start timing again from the point where you stopped, select **Options > Start**.

OR

To reset the time to zero without saving it, select **Options > Reset > Yes**.

Measure split time

You can use the split time function for such things as a long distance race when you need to pace yourself.

1 From the menus, select **Applications > Extras > Stopwatch > Split timing > Start**.

The running time appears on the screen.

2 To take an intermediate time, select **Split**.

The timer continues to run. The split time appears below the running time.

If you split the time more than once, the new measured time appears at the beginning of the list. You can scroll to see previous measured times.

3 To stop timing, select **Stop**.

The total time appears at the top of the display.

4 To start timing again from the point where you stopped, select **Options > Start**.

OR

To reset the time to zero without saving it, select **Options > Reset > Yes**.

Measure lap time

You can use the lap time function when you want to track how long it takes to complete each cycle or lap.

1 From the menus, select **Applications > Extras > Stopwatch > Lap timing > Start**.

The running time appears on the screen.

2 Take a lap time by selecting **Lap**.

The clock stops, then starts immediately from zero. The lap time appears below the running time.

If you take more than one lap time, the new measured time appears at the beginning of the list. You can scroll to see previous measured times.

3 To stop timing, select **Stop**.

The total time appears at the top of the display.

Save the time

1   While the clock is running, select **Stop > Save**.

2   Enter a name for the measurement, and select **OK**.

If you do not enter a name, the total time is used as the default title for the lap time.

Other stopwatch options

You can choose the following options when using the stopwatch:

Continue—When the stopwatch is working in the background, view the time.

Show last time—Allows you to view the last measured time.

View times—Allows you to browse the saved times.

Delete times—Allows you to delete any saved times. You can delete the saved times one by one or all at once.
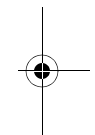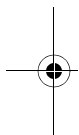
15 Services (Menu 9)
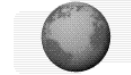
The browser on your phone can display content that uses
Wireless Mark-up Language (WML) or extensible Hypertext
Mark-up Language (XHTML). The browser supports WAP 2.0 protocols (HTTP and
SSL) that run on TCP/IP protocols.

This feature is a network service. Contact your service provider for more
information.

Because mobile Internet content is designed to be viewed from your phone, your
service provider is now your mobile Internet service provider as well.

It is likely that your service provider has created a home page and set up your
browser to go to this page when you log on to the mobile Internet. Once at your
service provider's home page, you may find links to a number of other sites.

• SET UP FOR BROWSING

It may not be necessary to manually configure the browser on your phone if this
was done by your service provider when you subscribed to the feature.

You may receive the service settings as a connection settings message from your
service provider. See "Connection settings service" on page 16.

You can key in the settings manually or add and edit the settings with PC Suite.

To key in the settings manually:

1 From the menus, select **Services > Settings > Connections settings > Active
service settings**.

2 Scroll to the connection set where you want to save the service settings, and
select **Activate**.

3 Select **Edit active service settings**; then select each of the settings, and enter
the information you received from your service provider.

Contact your service provider if you have problems using the browser.

• SIGN ON TO THE MOBILE INTERNET

Activate service settings for the desired service

1 From the menus, select **Services > Settings > Connections settings > Active
service settings**.

2 Scroll to the desired service, and select **Activate**.

Connect to the service

Your service provider may have programmed the **Right selection** key to connect you directly to a Web site, for example, the provider's customer site. You can change this setting by reprogramming the **Right selection** key. See "Personal shortcuts" on page 83.

There are several ways to connect to a service:

- To open the service's start page, from the menus, select **Services > Home**.

  OR

  At the start screen, press and hold the **0** key (the Internet icon 🌐).

- To select a bookmark, select **Services > Bookmarks**, and select a bookmark from the list.

  If the bookmark does not work with the current active service settings, activate another set of service settings and try again.

- To go to the last site you visited, select **Services > Last web addr**.

- To enter the address of the service, select **Services > Go to address**. Enter the address of the service, and select **OK**.

After a brief pause, the phone attempts to connect to your service provider's home page or to the address that you selected.

If you see **Check service settings**, the phone may not be set up for browsing. Contact your service provider to make sure that your phone is configured properly.

If GPRS is selected as the data bearer, **G** is shown in the upper left corner of the display during browsing. If you make a call or receive a call or text message, the GPRS connection is suspended and 📶 is shown in the upper right corner of the display. After the call, the phone tries to reestablish the GPRS connection.

• NAVIGATE THE MOBILE INTERNET

Since your phone screen is much smaller than a computer screen, mobile Internet content is displayed differently from content displayed on a computer. This section contains guidelines for using phone keys to navigate a mobile Internet site.

- To browse the site, use any of the scroll keys.

- To select a highlighted item, press the **Talk** key or the **Middle selection** key.

- To enter letters and numbers, press a key from **0–9**.

- To enter special characters, press the ***** key.

• EXAMPLE OF A MOBILE INTERNET SITE

The following illustration shows some common elements you may find on a mobile Internet site. These are examples only.

1) Header line. Shows the current mobile Internet site.

2) Active link. Appears as a highlighted word.

3) Inactive link. Appears as an underlined word.

Scroll through the list of links using the **Scroll up** key and the **Scroll down** key.

4) Options. Select **Options** to go to the list of service options. See "Options while online" on page 141.

5) Select. Select **Select** to go to the active link.

6) Back. Select **Back** to return to the previous page.
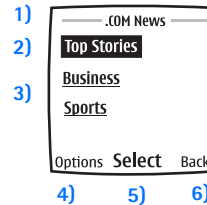
• APPEARANCE SETTINGS

You can determine how pages appear on the phone display.

1 From the menus, select **Services > Settings > Appearance settings**.

OR

While browsing, select **Options > Other options > Appear. settings**.

2 Select one of the following options:

Text wrapping—Text on the Web page continues on the next line if it cannot be shown on only one line. Select **On** to allow text wrapping, or **Off** to prevent text wrapping.

Font size—Select **Small**, **Normal**, or **Large**.

Show images—Select **Yes** to display pictures from the page or **No** to hide pictures. When pictures are displayed, pages load more slowly.

Alerts—The phone can alert you to unsecure connections and to unsecure items on secure pages. However, these alerts do not guarantee a secure connection.

- **Alert for unsecure connection**—Select **Yes** to set the phone to alert you when a secure connection changes to an unsecure connection during browsing.
- **Alert for unsecure items**—Select **Yes** to set the phone to alert you when a secure page contains an unsecure item.

Character encoding—Select encoding methods for Web content and Web addresses.

- **Content encoding**—Select the character set that the phone uses to display browser pages that do not include that information.
- **Unicode (UTF-8) web addresses**—Determine whether to always use UTF-8 encoding when sending a Web address to a compatible phone. Select **On** or **Off**.

• BOOKMARKS

You can save addresses for your favorite sites as bookmarks. You can add up to 50 bookmarks to your browser. Once you have saved a bookmark, you can program the **Go to** menu to take you directly to that site. See "Personal shortcuts" on page 83.

Enter bookmarks manually

1   From the menus, select **Services > Bookmarks**.
2   If there are no bookmarks in the list, select **New**.

OR

If there are bookmarks in the list, select **Options > New bookmark**.

3   Enter an address for the bookmark, and select **OK**.
4   Enter a title for the bookmark, and select **OK**.

Set bookmarks while online

While you are connected to the site that you want to bookmark, select **Options > Add bookmark**.

A message appears in the display confirming your bookmark is saved.

• SERVICE INBOX

You can receive service messages (pushed messages) from your service provider.

Receive service messages

To set the phone to receive service messages:

From the menus, select **Services > Settings > Service inbox settings > Service messages > On**.

To set the phone to automatically fetch the content indicated in the service message:

From the menus, select **Services > Settings > Service inbox settings > Automatic conn.** and one of the following:

On—The phone automatically activates the browser from the standby mode when a service message is received.

Off—The phone activates the browser only when you select **Retrieve** after a service message is received.

View a service message

When you receive a service message, a note appears in the display.

At the start screen, select **Show** to view the message immediately, or **Exit** to save it for later viewing.

OR

While browsing, select **Options > Other options > Service inbox**.

To view a saved service message:

1 From the menus, select **Services > Service inbox**.
2 Scroll to the desired message, and select **Options** and one of the following:

Retrieve—Activate the browser, and download the content indicated in the message.

Details—View the details of the message.

Delete—Delete the message.

• FILE UPLOAD

Depending on your service, you may be able to upload images and sound files from the gallery in your phone to a Web page. You must be connected to an XHTML page that supports form submission. Follow the instructions on the display to upload files. For more information, contact your service provider.

• FILE DOWNLOAD

You can download tones, images, games, and applications from the mobile Internet.

1 From the menus, select **Services > Download links > Tone downloads, Graphic downloads, Game downloads, Video downloads**, or **App. downloads**.
2 Select one of the sites from the list and follow the prompts.

• DISCONNECT FROM THE MOBILE INTERNET

To close your connection, press the **End** key twice.

OR

Select **Options > Quit > Yes**.

• RECEIVE A CALL WHILE ONLINE

If you are using the browser over GPRS, you can still receive a voice call. Your GPRS connection is put on hold and you can choose to answer the call.

- • To answer the incoming call, press the **Talk** key.
- • To reject the incoming call, press the **End** key.

After you end the voice call, the GPRS connection automatically resumes.

• MAKE A CALL WHILE ONLINE

When you are browsing a mobile Internet site and want to make a call, select **Options > Other options > Use detail > Phone number**. Your phone searches the information on the site for a string of numbers. Choose from the number or numbers displayed to place the call.

An alternate way is to press the **End** key twice to disconnect from the mobile Internet; then place your call by searching contacts for a name and number or by keying in the phone number.

• MAKE AN EMERGENCY CALL WHILE ONLINE

If you are using GPRS to connect to the mobile Internet, you can end your data connection and then make an emergency call.

1 To close your mobile Internet connection, press the **End** key twice.
2 Enter the emergency number for your present location (for example, 911).
3 Press the **Talk** key.

• OPTIONS WHILE ONLINE

While you are connected to the mobile Internet, select **Options** to access the following options. Some service providers may have customized these options. Contact your service provider for more information if any of the following options are not available.

Shortcuts—Open a new list of options, for example, options specific to the current page.

Home—Go to the service home page.

Add bookmark—Saves the current page as a bookmark.

Bookmarks—Shows a list of all saved bookmarks. Bookmarks help you find a mobile Internet site quickly.

Download links—Show the list of bookmarks for downloading tones, graphics, games, or applications.

Save to folder—Add a bookmark for the current site to the list of bookmarks for downloading tones, graphics, games, videos, or applications. The bookmark then appears in the appropriate folder in the **Download links** submenu.

Other options—Show a list of other options, such as appearance and security options.

Reload—Reload and update the current page.

Quit—Disconnect from a service.

• SECURITY

Security features may be required for some services, such as banking or shopping. For such connections you need security certificates and possibly a security module which may be available on your SIM card. For more information, contact your service provider.

Security module

The security module improves security services and allows you to use a digital signature. It can contain certificates and public and private keys. Your service provider saves the certificates in the security module.

From the menus, select **Services > Settings > Security settings > Security module settings** and one of the following:

Security module details—View the security module title, status, manufacturer, and serial number.

Module PIN request—Select **On** to set the phone to ask for the module PIN when using services provided by the security module.

Change module PIN—Change the module PIN, if allowed by the security module.

Change signing PIN—Select the signing PIN that you want to change, enter the current PIN code; then enter the new PIN code twice.

Digital signature

You can make digital signatures with your phone if your SIM card has a security module. The signature can be traced back to you through the private key on the security module and the user certificate that was used to perform the signature. Using the digital signature can be the same as signing your name to a paper bill, contract, or other document.

1   While browsing, select a link on a page, such as the title of the book you want to buy and its price.

    The text to sign (possibly including amount, date, etc.) is shown.

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

    If the digital signature icon does not appear, there is a security breach. Do not enter any personal data such as your signing PIN.

3   Read *all* of the text before signing, scrolling through the text if necessary.

4   To sign the text, select **Sign**.

5   Select the user certificate you want to use, enter the signing PIN (provided with the SIM card if the SIM card has a security module), and select **OK**.

    The digital signature icon disappears, and the service may display a confirmation of your purchase.

Cache memory

The information or services you access with the browser are temporarily saved in the cache memory of the phone. A cache is a buffer memory that is used to store data temporarily.

If you tried to access or have accessed confidential information requiring passwords (for example, your bank account), clear the cache after each use.

To clear the cache from the menu, select **Services > Clear the cache**.

To clear the cache while browsing, select **Options > Other options > Clear the cache**.

Certificates

There are three kinds of certificates—server, authority, and user.

Certificates have a restricted lifetime. If **Expired certificate** or **Certificate not valid yet** is shown even though the certificate should be valid, check that the current date and time settings in your phone are correct. Before changing these settings, make sure that you really trust the owner of the certificate and that the certificate really belongs to the listed owner.

SERVER CERTIFICATES

The phone uses a server certificate to create a connection with improved security between the phone and the content server. The phone receives the server certificate from the service provider before the connection is established. The validity of the server certificate is checked using the authority certificates saved in the phone. Server certificates are not saved.

AUTHORITY CERTIFICATES

Authority certificates are used by some services, such as banking, for checking the validity of other certificates. Authority certificates can be saved in the security module by the service provider, or they can be downloaded from the network if the service supports the use of authority certificates.

To view authority certificates, select **Services > Settings > Security settings > Authority certificates > Certificate list**, scroll to the desired certificate, and select **View**.

USER CERTIFICATES

User certificates are issued to users by a certifying authority. User certificates are required to make a digital signature. They associate the user with a specific private key in a security module.

To view user certificates, select **Services > Settings > Security settings > User certificates > Certificate list**, scroll to the desired certificate, and select **View**.

Cookies

A cookie is data that a Web site saves in your phone browser cache memory. The data can be, for example, your user information or your browsing preferences. Cookies will be saved until you clear the cache memory.

1   From the menus, select **Services > Settings > Security settings > Cookies**.

    OR

    While browsing, select **Options > Other options > Security > Cookies**.

2   Select **Allow** to accept cookies or **Reject** to reject cookies.

• POSITIONING

The positioning feature allows the network to detect the location of your phone. When the network receives a request for the location, a message is displayed on your phone. You can then accept or reject the request.

The functionality and accuracy of this feature is dependent on the network, satellite systems, and the agency receiving the information. It may not function in all areas or at all times.

View position log

The position log contains the 10 most recent positioning requests and notifications.

1 From the menus, select **Services > Positioning > Position log > Open folder**.

2 Scroll to the desired item, and select **Show** to view details of the request.

Delete position log

From the menus, select **Services > Positioning > Position log > Delete all**.

The list of positioning requests is deleted.
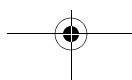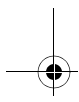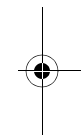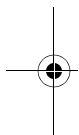
16 SIM services (Menu 10)

In addition to the functions available on the phone, your SIM card may provide additional services that you can access through the SIM services menu. This menu is shown only if it is supported by your SIM card. The name and contents of the menu depend entirely on the service available. For availability, rates, and information on using SIM services, contact your service provider.

To see the messages sent between the phone and the network when you are using the SIM services, select **Settings > Phone settings > Confirm SIM service actions > Yes**.

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

17 Hardware and enhancements

• HARDWARE

Connection ports and other tools

- Charger connector (1)
- Pop-Port connector for headsets and data cables (2)
- IR port and loudspeaker (3)
- Camera lens on the back cover of the phone (4)
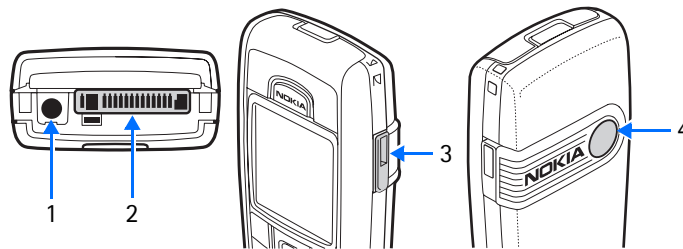
Antenna

Your phone has a built-in antenna. As with any other radio transmitting device, avoid touching the antenna while the phone is powered up.

Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than necessary. Hold the phone as you would any other telephone with the antenna area pointed up and over your shoulder.
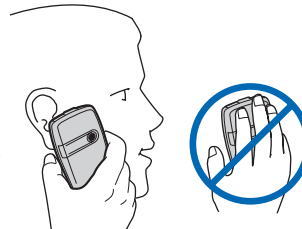
Hardware and enhancements

Recharge the battery

Your phone is powered by a rechargeable battery. To charge the battery:

1 Plug the charger transformer in to a standard ac outlet.

2 Insert the charger output plug into the round connector at the bottom end of the phone.

After a few seconds, the battery indicator in the display starts to scroll from bottom to top. If the battery is completely discharged, it may take a few minutes before the charging indicator appears on the display or any calls can be made.
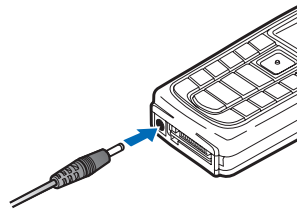
You can use the phone while the charger is connected.

Talk time

The BL-5C battery provides up to 5 hours of talk time and up to 300 hours of standby time. Operation times are estimates and may vary depending on network conditions, charging, and use of various features.

Change the Xpress-on™ covers

⚠ **Warning:** Before changing covers, ensure the phone is powered off and disconnected from the charger or any other device. Always store and use the phone with the covers attached.

1 Remove the back cover as described in "Remove the back cover" on page 18.

2 Beginning at the top of the phone, gently pull the front cover away from the phone and detach the front cover.
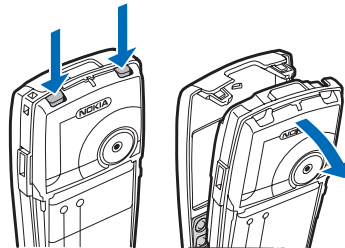
3 Remove the key mat from the front cover by pressing it gently outwards.
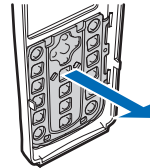
4 Place the keymat in the new front cover and press it gently in.
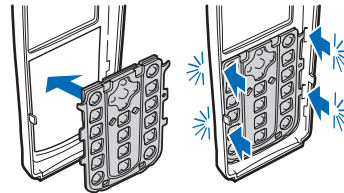
5 Replace the front cover by pressing it gently on the phone, beginning from the bottom.
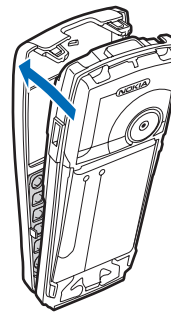
6 Replace the back cover as described in "Replace the back cover" on page 20.

• ENHANCEMENTS

Your phone is compatible with the following Nokia mobile enhancements:

Power

- 850-mAh Li-Ion battery (BL-5C)
- Standard travel charger (ACP-7)
- Rapid travel charger (ACP-8)

Hardware and enhancements

- Travel charger (ACP-12)
- Mobile charger (LCH-9)
- Mobile charger (LCH-12)

Data

- Data cable (DKU-2)
- Desktop stand (DCV-14)

Audio

- Music stand (DT-1)
- Boom headset (HDB-4)
- Stereo headset (HDS-3)
- Retractable headset (HS-10)
- Loopset (LPS-4)

Bluetooth audio

- Wireless headset HDW-2
- Wireless clip-on headset HS-3W
- Wireless boom headset HS-4W

Accessibility

- Phone adapter (HDA-10)

Car

- Car installation kit (CK-6)
- Wireless car kit (CK-1W)
- Headrest handsfree (BHF-1)

Other

- Nokia image viewer (SU-2)
- BT digital pen (SU-1B)
- MultiMediaCard DTS64/256 MB
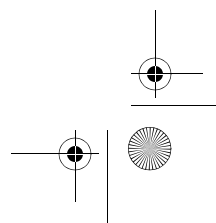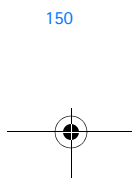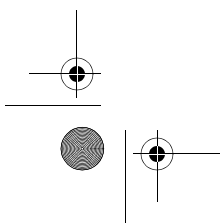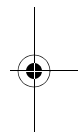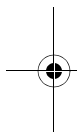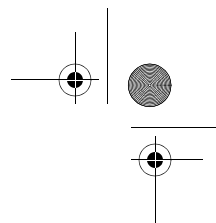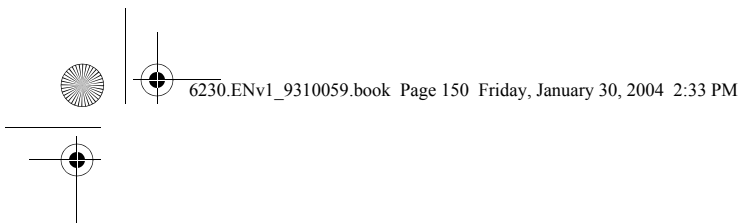
18 Reference Information

• BATTERY INFORMATION

Charging and discharging

Your device is powered by a rechargeable battery. The full performance of a new battery is achieved only after two or three complete charge and discharge cycles. The battery can be charged and discharged hundreds of times but it will eventually wear out. When the talk and standby times are noticeably shorter than normal, buy a new battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

Unplug the charger from the electrical plug and the device when not in use. Do not leave the battery connected to a charger. Overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time. Temperature extremes can affect the ability of your battery to charge.

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 59°F and 77°F (15°C and 25°C). 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! Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

• ENHANCEMENTS

A few practical rules about accessories and enhancements:

- Keep all accessories and enhancements out of the reach of small children.
- When you disconnect the power cord of any accessory or enhancement, grasp and pull the plug, not the cord.
- Check regularly that enhancements installed in a vehicle are mounted and are operating properly.
- Installation of any complex car enhancements must be made by qualified personnel only.

• ENHANCEMENTS, BATTERIES, AND CHARGERS

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from ACP-7, ACP-8, ACP-12, LCH-9, and LCH-12 chargers.

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

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

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

• CARE AND MAINTENANCE

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

- 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.

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

• ADDITIONAL SAFETY INFORMATION

Operating environment

Remember to follow any special regulations in force in any area and always switch off your device when its use is prohibited or when it may cause interference or danger. Use the device only in its normal operating positions. To maintain compliance with radio frequency exposure guidelines only use accessories approved by Nokia for use with this device. When the device is on and being worn on the body, always use an approved carrying case.

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 phone in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

PACEMAKERS

Pacemaker manufacturers recommend that a minimum separation of 6 inches (15.3 cm) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. To minimize the potential for interference, persons with pacemakers should

- Always keep the device more than 6 inches (15.3 cm) from their pacemaker when the device is switched on
- Not carry the device in a breast pocket
- Hold the device to the ear opposite the pacemaker

If you have any reason to suspect that interference is taking place, switch off your device immediately.

HEARING AID

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, 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 an 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.

Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refuelling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, storage, and distribution areas, chemical plants or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), and areas where the air contains chemicals or particles such as grain, dust or metal powders.

FCC regulations prohibit using your wireless device while in the air. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

Failure to observe these instructions may lead to suspension or denial of telephone services to the offender, legal action, or both.

EMERGENCY CALLS

Important: Wireless phones, including this phone, 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 phone for essential communications like medical emergencies.

To make an emergency call:

1. If the phone 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 phone.

2. Press the **End** key as many times as needed to clear the display and ready the phone for calls.

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

4. Press the **Talk** key.

If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this guide or your service provider. When making an emergency call, give all the necessary information as accurately as possible. Your wireless phone 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 MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.* Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC for each model.

The following values are the highest SAR value for this model phone as reported to the FCC.

When tested for use at the ear:

FCCID # QTKRH-12 is 0.65 W/kg

FCCID # QTKRH-28 is 0.76 W/kg

When worn on the body, as described in this user guide:

FCCID # QTKRH-12 is 1.02 W/kg

FCCID # QTKRH-28 is 1.11 W/kg

(Body-worn measurements differ among phone models, depending upon available enhancements and FCC requirements).

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement. The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of **http://www.fcc.gov/oet/fccid** after searching on FCC ID QTKRH-12 and FCC ID QTKRH-28.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines for use with a carry case, belt clip, or holder that contains no metal and that positions the handset a minimum of 5/8-inch (1.5 cm) from the body. Use of other carry cases, belt clips, or holders may not ensure compliance with FCC RF exposure guidelines. If you do not use a body-worn accessory and are not holding the phone at the ear, position the handset a minimum of 5/8-inch (1.5 cm) from your body when the phone is switched on.

*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at **www.nokia.com**.

• TECHNICAL INFORMATION

Feature	Specification
Dimensions	Width 44 mm Height 103 mm Depth 20 mm
Weight	97 g with BL-5C Li-Ion Battery
Wireless networks	GSM 850, 1800, and 1900 networks (RH-28) OR GSM 900, 1800, and 1900 networks (RH-12)
Size (volume)	76 cm^3
Frequency range (Tx)	GSM 850: 824–849 MHz (for RH-28) GSM 900: 880–915 MHz (for RH-12) GSM 1800: 1710–1785 MHz (for RH-12 and RH-28) GSM 1900: 1850–1910 MHz (for RH-12 and RH-28)
Frequency range (Rx)	GSM 850: 869–894 MHz (for RH-28) GSM 900: 925–960 MHz (for RH-12) GSM 1800: 1805–1865 MHz (for RH-12 and RH-28) GSM 1900: 1930–1990 MHz (for RH-12 and RH-28)
Tx output power	2 W (max)
Battery voltage	3.7 V dc
Number of channels	299
Memory capacity	5 MB shared memory 8 MB pool memory for gallery files Up to 256 MB extra memory in MultiMediaCard
Operating temperature	Between 59°F and 77°F (15°C and 25°C).
Number of entries in contacts	Up to 1000

• Nokia ONE-YEAR LIMITED WARRANTY

Nokia Inc. ("Nokia") warrants that this cellular phone ("Product") is free from defects in material and workmanship that result in Product failure during normal usage, according to the following terms and conditions:

1 The limited warranty for the Product extends for ONE (1) year beginning on the date of the purchase of the Product. This one year period is extended by each whole day that the Product is out of your possession for repair under this warranty.

2 The limited warranty extends only to the original purchaser ("Consumer") of the Product and is not assignable or transferable to any subsequent purchaser/end-user.

3 The limited warranty extends only to Consumers who purchase the Product in the United States of America.

4 During the limited warranty period, Nokia will repair, or replace, at Nokia's sole option, any defective parts, or any parts that will not properly operate for their intended use with new or refurbished replacement items if such repair or replacement is needed because of product malfunction or failure during normal usage. No charge will be made to the Consumer for any such parts. Nokia will also pay for the labor charges incurred by Nokia in repairing or replacing the defective parts. The limited warranty does not cover defects in appearance, cosmetic, decorative or structural items, including framing, and any non-operative parts. Nokia's limit of liability under the limited warranty shall be the actual cash value of the Product at the time the Consumer returns the Product for repair, determined by the price paid by the Consumer for the Product less a reasonable amount for usage. Nokia shall not be liable for any other losses or damages. These remedies are the Consumer's exclusive remedies for breach of warranty.

5 Upon request from Nokia, the Consumer must prove the date of the original purchase of the Product by a dated bill of sale or dated itemized receipt.

6 The Consumer shall bear the cost of shipping the Product to Nokia in Melbourne, Florida. Nokia shall bear the cost of shipping the Product back to the Consumer after the completion of service under this limited warranty.

7 The Consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

a) The Product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of Nokia, including damage caused by shipping.

b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, or improper use of any electrical source, damage caused by computer or internet viruses, bugs, worms, Trojan Horses, cancelbots or damage caused by the connection to other products not recommended for interconnection by Nokia.

c) Nokia was not advised in writing by the Consumer of the alleged defect or malfunction of the Product within fourteen (14) days after the expiration of the applicable limited warranty period.

d) The Product serial number plate or the enhancement data code has been removed, defaced or altered.

e) The defect or damage was caused by the defective function of the cellular system or by inadequate signal reception by the external antenna, or viruses or other software problems introduced into the Product.

8 Nokia does not warrant uninterrupted or error-free operation of the Product. If a problem develops during the limited warranty period, the Consumer shall take the following step-by-step procedure:

a) The Consumer shall return the Product to the place of purchase for repair or replacement processing.

b) If "a" is not convenient because of distance (more than 50 miles) or for other good cause, the Consumer shall ship the Product prepaid and insured to:
Nokia Inc., Attn: Repair Department
795 West Nasa Blvd.
Melbourne, FL 32901

c) The Consumer shall include a return address, daytime phone number and/or fax number, complete description of the problem, proof of purchase and service agreement (if applicable). Expenses related to removing the Product from an installation are not covered under this limited warranty.

d) The Consumer will be billed for any parts or labor charges not covered by this limited warranty. The Consumer will be responsible for any expenses related to reinstallation of the Product.

e) Nokia will repair the Product under the limited warranty within 30 days after receipt of the Product. If Nokia cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, Nokia at its option, will provide a replacement Product or refund the purchase price of the Product less a reasonable amount for usage. In some states the Consumer may have the right to a loaner if the repair of the Product takes more than ten (10) days.

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Please contact the Customer Service Center at Nokia at the telephone number listed at the end of this warranty if you need a loaner and the repair of the Product has taken or is estimated to take more than ten (10) days.

f) If the Product is returned during the limited warranty period, but the problem with the Product is not covered under the terms and conditions of this limited warranty, the Consumer will be notified and given an estimate of the charges the Consumer must pay to have the Product repaired, with all shipping charges billed to the Consumer. If the estimate is refused, the Product will be returned freight collect. If the Product is returned after the expiration of the limited warranty period, Nokia's normal service policies shall apply and the Consumer will be responsible for all shipping charges.

9 You (the Consumer) understand that the product may consist of refurbished equipment that contains used components, some of which have been reprocessed. The used components comply with Product performance and reliability specifications.

10 ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY. OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. NOKIA SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF NOKIA KNEW OF THE LIKELIHOOD OF SUCH DAMAGES. NOKIA SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.

11 Some states do not allow limitation of how long an implied warranty lasts, so the one year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.

12 Nokia neither assumes nor authorizes any authorized service center or any other person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this limited warranty including the provider or seller of any extended warranty or service agreement.

13 This is the entire warranty between Nokia and the Consumer, and supersedes all prior and contemporaneous agreements or understandings, oral or written, relating to the Product, and no representation, promise or condition not contained herein shall modify these terms.

14 This limited warranty allocates the risk of failure of the Product between the Consumer and Nokia. The allocation is recognized by the Consumer and is reflected in the purchase price.

15 Any action or lawsuit for breach of warranty must be commenced within eighteen (18) months following purchase of the Product.

16 Questions concerning this limited warranty may be directed to:
Nokia Inc.
Attn: Customer Service
7725 Woodland Center Blvd., Ste. 150
Tampa, FL 33614
Telephone: 1-888-NOKIA-2U (1-888-665-4228)
Facsimile: (813) 287-6612
TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)

17 The limited warranty period for Nokia supplied attachments and accessories is specifically defined within their own warranty cards and packaging.

Appendix A Message from the CTIA
(Cellular Telecommunications & Internet Association) to all users of mobile phones

© 2001 Cellular Telecommunications & Internet Association. All Rights Reserved.1250 Connecticut Avenue, NW Suite 800, Washington, DC 20036. Phone: (202) 785-0081
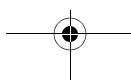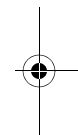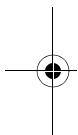
Safety is the most important call you will ever make.

A Guide to Safe and Responsible Wireless Phone Use

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

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

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

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

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

Wireless Phone "Safety Tips"

Below are safety tips to follow while driving and using a wireless phone which should be easy to remember.

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

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

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

4   Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice

can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

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

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

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

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

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

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

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

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

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

For updates: http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85
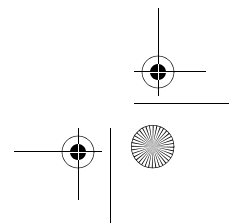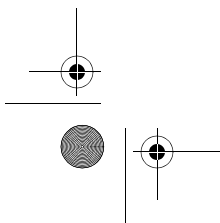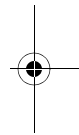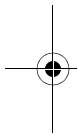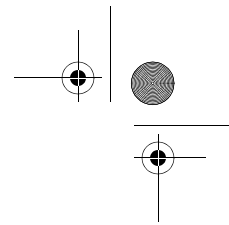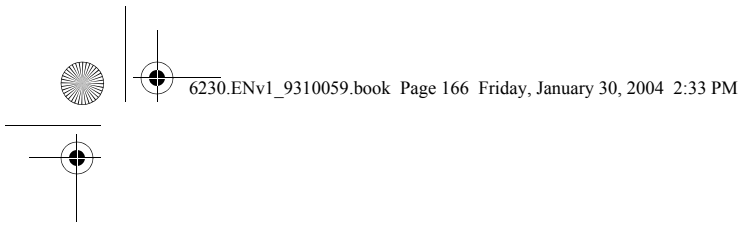
Appendix B Message from the FDA (U.S. Food and Drug Administration) to all users of mobile phones

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Consumer Update on Wireless Phones

U.S. Food and Drug Administration

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

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

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

• Support needed research into possible biological effects of RF of the type
  emitted by wireless phones;
• Design wireless phones in a way that minimizes any RF exposure to the user
  that is not necessary for device function; and
• Cooperate in providing users of wireless phones with the best possible
  information on possible effects of wireless phone use on human health.

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

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

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

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

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

3. What kinds of phones are the subject of this update?

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell mobile or PCS phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called cordless phones; which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be

needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

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

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much radiofrequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radiofrequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects.

Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has FDA done to measure the radiofrequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radiofrequency energy (RF) exposure from wireless

phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques, sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

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

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

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

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

10. What about children using wireless phones?

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

11. What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation

(AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a accompanied hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

- FDA web page on wireless phones
  http://www.fda.gov/cdrh/phones/index.html
- Federal Communications Commission (FCC) RF Safety Program
  http://www.fcc.gov/oet/rfsafety
- International Commission on Non-Ionizing Radiation Protection
  http://www.icnirp.de
- World Health Organization (WHO) International EMF Project
  http://www.who.int/emf
- National Radiological Protection Board (UK)
  http://www.nrpb.org.uk/

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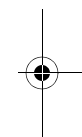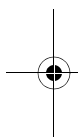
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