* Some of the contents of this manual may differ from your phone, depending on the software installed or your service provider.

World Wide Web
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SGH-X620
User's Guide

Important safety precautions

Failure to comply with the following precautions may be dangerous or illegal.

Use road safety at all times

Do not use a hand-held phone while driving. Park the vehicle first.

Switch off the phone when refuelling

Do not use the phone at a refuelling point (service station) or near fuels or chemicals.

Switch off in an aircraft

Wireless phones can cause interference. Using them in an aircraft is both illegal and dangerous.

Switch off the phone near all medical equipment

Hospitals or health care facilities may be using equipment that could be sensitive to external radio frequency energy. Follow any regulations or rules in force.

Interference

All wireless phones may be subject to interference, which could affect their performance.

Be aware of special regulations

Meet any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference or danger.

Water resistance

Your phone is not water-resistant. Keep it dry.

Sensible use

Use only in the normal position (held to the ear). Avoid unnecessary contact with the antenna when the phone is switched on.

Emergency call

Key in the emergency number for your present location, then press [ ].

Keep your phone away from small children

Keep the phone and all its parts, including accessories, out of the reach of small children.

Accessories and batteries

Use only Samsung-approved accessories and batteries. Use of any unauthorised accessories could damage your phone and may be dangerous.

- The phone could explode if the battery is replaced with an incorrect type.
- Dispose of used batteries according to the manufacturer's instructions.

Qualified service

Only qualified service personnel may repair your phone.

For more detailed safety information, see "Health and safety information" on page 66.

About this Guide

This User's Guide provides you with condensed information about how to use your phone. To quickly learn the basics for your phone, please refer to "Get started" and " Step outside of the phone."

In this guide, the following instruction icons appear:

☑	Indicates that you need to pay careful attention to the subsequent information regarding safety or phone features.
▶	Indicates that you can get more information on the referenced page.
→	Indicates that you need to press the Navigation keys to scroll to the specified option and then select it.
[ ]	Indicates a key on the phone. For example, [*i*/OK]
< >	Indicates a soft key, whose function is displayed on the phone screen. For example, <**Menu**>

- **Camera**
  Use the camera module on your phone to take a photo.

Special features of your phone

- **IrDA**
  Send and receive Phonebook via an infrared port.

- **WAP browser**
  Access the wireless web and access various services and up-to-the-minute information.

- **Plug-in speaker**
  Use the included external speaker to talk without having to hold the phone.

- **Simple, compact design with Intenna**
  Samsung's powerful intenna technology allows the best call quality without an annoying external antenna.

- **Multimedia Message Service (MMS)**
  Deliver MMS messages with a combination of text, images, and audio.

- **FM radio**
  Listen to your favourite FM radio channels anytime, anywhere.

- **Java**
  Enjoy Java™-based embedded games and download new games.

- **Calendar**
  Keep track of your daily, weekly, and monthly schedule.

- **Voice recorder**
  Record memos or sounds.

- **Timer and stopwatch**
  Count down to a specific event or measure the time it takes to do your exercise or work.

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1 Shows only if supported by your SIM card.

Press <**Phonebook**> in Idle mode.

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Unpack

Make sure you have each item

Phone

Travel Adapter

Battery

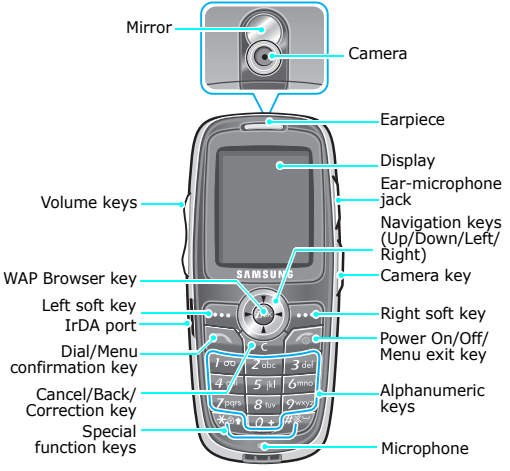
User's Manual

You can obtain various accessories from your local Samsung dealer.

☑ The items supplied with your phone and the accessories at your Samsung dealer may vary, depending on your country or service provider.

Your phone

Buttons, features, and locations



Get started

First steps to operate your phone

SIM card information

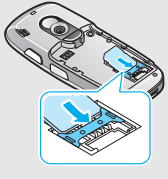
When you subscribe to a cellular network, you receive a plug-in SIM (Subscriber Identity Module) card loaded with your subscription details, such as your PIN, and available optional services.

Install and charge the phone

1 Remove the battery.

☑ If the phone is already on, first turn it off by holding [ ].

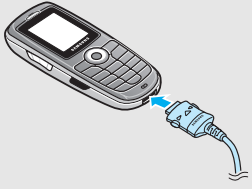
2 Insert the SIM card.



☑ Make sure that the gold-coloured contacts on the card face down into the phone.

3 Install the battery.

4 Plug the travel adapter into the phone.



5 Plug the adapter into a standard AC wall outlet.

6 When the phone is completely charged (the battery icon stops blinking), unplug the adapter from the power outlet.

7 Remove the adapter from the phone.

Low battery indicator

When the battery is low:

- a warning tone sounds,
- the battery low message displays, and
- the empty battery icon ▭ blinks.

If the battery level becomes too low, the phone automatically turns off. Recharge your battery.

Power on or off

Power on Do not turn on the phone when mobile phone use is prohibited.	1. Press and hold [ ] to turn on the phone.
	2. If necessary, enter the phone password and press <**OK**>.
	3. If necessary, enter the PIN and press <**OK**>
Power off	1. Press and hold [ ].

Keypad lock

When the phone is locked, the keypad lock feature locks the exposed keys so that nothing will happen if the keys are accidentally pressed.

To unlock the keypad, press <**Unlock**> and press <*>.

Keys and display

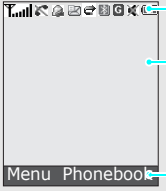
Key(s)	Description
	Perform the function indicated on the bottom line of the display.
	In Idle mode, access menu options directly. • Up: **Camera** • Down: **FM radio** • Left: **Create** in **Short messages** • Right: **Calendar** In Menu mode, scroll through the menu options.
	In Idle mode, launches the Wireless Application Protocol (WAP) browser.
	Sends or answers a call. In Idle mode, retrieves the last number dialled, missed, or received.
	Deletes characters from the display. In Menu mode, returns to the previous menu level. In Idle mode, enters the **New memo** menu when held down.

Key(s)	Description
	Ends a call. Hold down to switch the phone on and off. In Menu mode, cancels input and returns the phone to Idle mode.
	Enter numbers, letters, and some special characters. In Idle mode, hold [**1**] down to access your voicemail.
	Enter special characters. In Idle mode, hold [*] down to lock the keypad and hold [#] down to activate or deactivate the Quiet mode.
(on the left)	Adjusts the phone volume. In Idle mode, adjusts the keypad tone volume.
(on the right)	In Idle mode, hold down to turn on the camera. In Capture mode, takes a photo.

Display

Layout

The display has the three areas.



Icons
displays various icons.

Text and graphics
displays messages, instructions, and information you enter.

Soft key function indicators
shows the current functions assigned to the two soft keys.

Icons

- Received signal strength
- Call in progress
- Out of your service area; you cannot send or receive calls
- Alarm set
- New text message
- New voicemail message

Icons (continued)

- New multimedia message
- Call diverting feature is active ▶ page 32
- IrDA port is active ▶ page 63
- GPRS network
- Home Zone, if you have registered for the appropriate service
- Office Zone, if you have registered for the appropriate service
- Set to vibrate call ringer ▶ page 34
- Quiet mode is active ▶ page 35
- Battery power level

Access menu functions

Use the soft keys

The roles of the soft keys vary depending on the function you are using. The bottom line of the display indicates their current role.

Press the left soft key to access **Menu** mode.

Press the right soft key to access the **Phonebook** menu.

Select an option

1. Press the appropriate soft key.
2. Press the Navigation keys to move to the next or previous option.
3. Press <**Select**> or [OK] to confirm the function displayed or option highlighted.
4. To exit, choose either of the following methods:
   - Press [ ] or [**C**] to move up one level.
   - Press [ ] to return to Idle mode.

Use shortcuts

Press the number key corresponding to the option you want.

Customise your phone

Display language

1. In Idle mode, press <**Menu**> and select **Phone settings** → **Language** → **Text language**.
2. Select a language.

Call ringer melody

1. In Idle mode, press <**Menu**> and select **Sound settings** → **Incoming calls**.
2. Select a sound category.
3. Select a ringer melody.

Idle mode Wallpaper

You can set a wallpaper for the idle screen.

1. In Idle mode, press <**Menu**> and select **Phone settings** → **Display** → **Wallpaper**.
2. Select an image category.
3. Press [Left] or [Right] to select an image.

Menu mode Skin colour

You can change the colour for the display components, such as title bars and highlight bars.

1. In Idle mode, press <**Menu**> and select **Phone settings** → **Display** → **Skin**.
2. Select a colour pattern.

Quiet mode

You can switch the phone to Quite mode to avoid disturbing other people with your phone sounds.

Press and hold [#] in Idle mode.

Phone lock

You can protect the phone against unauthorised use with a phone password.

1. In Idle mode, press <Menu> and select **Phone settings** → **Security** → **Change password**.
2. Enter the default password, "00000000" and press <**OK**>.
3. Enter a new 4- to 8- digit password and press <**OK**>.
4. Enter the new password again and press <**OK**>.
5. Select **Phone lock**.
6. Select **Enable**.
7. Enter the password and press <**OK**>.

Make/answer calls

Make a call

1. Enter an area code and phone number.
2. Press [ ].
3. To end the call, press [ ].

Answer a call

1. When the phone is ringing, press [ ].
2. To end the call, press [ ].

Adjust the volume during a call

Press [/]. ▶ page 9

Step outside of the phone

Begin with your camera, games, and other special features

Use camera

Take a photo

1. In Idle mode, press and hold [📷] to turn on the camera.
2. Aim the lens at the subject and adjust the image.
3. Press [📷] to take a photo. The photo is saved automatically.
4. Press [**C**] to take another photo.

View a photo

1. In Idle mode, press [Up] and select **My photos**.
2. Select a photo you want.

Play games

Lauch a game

1. In Idle mode, press <**Menu**> and select **Fun box** → **JAVA world** → **Downloads** → **SnowBallFight** or **BubbleSmile**.
2. Press <**Options**> and select **Launch** to launch the game.

Play SnowBallFight

1. After loading a game, press any key twice.
2. Press [#].

Play BubbleSmile

1. After loading a game, select **START GAME** → the game mode you want.

Browse WAP

Using a built-in WAP (Wireless Access Protocol) browser, you can get easy access to the wireless web to receive a variety of latest services and information and to enjoy download of web contents.

Launch the browser

In Idle mode, press [i/OK].

Navigate the web

- To scroll through browser items, press [Up] or [Down].
- To select an item, press < ✓ >.
- To return to the previous page, press <**Back**> or [**C**].
- To return to the home page, hold down [**C**].

Use Phonebook

Add an entry

To the phone's memory

1. In Idle mode, enter a phone number and press <**Save**>.
2. Select **Phone** → a number type.
3. Enter a name and press <**OK**>.

To the SIM card

1. In Idle mode, enter a phone number and press <**Save**>.
2. Select **SIM**.
3. Enter a name and press <**OK**>.
4. Enter a location number and press <**OK**>.

Find an entry

1. In Idle mode, press <**Phonebook**> and select **Find name**.
2. Enter a name you want to find.
3. Select an entry.
4. Select a number and press [ ] to dial, or <**Options**> to access options.

Send messages

Send a short message (SMS)

1. In Idle mode, press <**Menu**> and select **Messages** → **Short messages** → **Create**.
2. Enter the message text.
3. Press <**Options**> and select **Send**.
4. Enter destination numbers.
5. Press <**OK**>.

Send a multimedia message (MMS)

1. In Idle mode, press <**Menu**> and select **Messages** → **Multimedia messages** → **Create**.
2. Press <**Add**> on the **Subject** line.
3. Enter the message subject <**OK**>.
4. Press <**Add**> on the **Picture** line.
5. Add an image file.
6. Scroll to the **Sound** line and press <**Add**>.
7. Add a sound file.
8. Scroll to the **Message** line and press <**Add**>.
9. Enter the message text.
10. Press <**Opt.**> and select **Done**.

11. Press <**Opt.**> and select **Send**.
12. Select an empty location.
13. Enter a destination.
14. Press <**Send**> to send the message.

View messages

View a short message

When a notification appears:

Press <**View**>. The message displays.

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Messages** → **Short messages** → **Inbox**.
2. Select a message.

View a multimedia message

When a notification appears:

1. Press <**View**>.
2. Press <**Options**> and select **Retrieve**. The message displays.

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Messages** → **Multimedia messages** → **Inbox**.
2. Select a message.

Access a voicemail

1. Press and hold [**1**] in Idle mode.
2. Follow the instructions from the system.

Manage schedule

Create a new memo

1. In Idle mode, press and hold [**C**].
2. Enter the memo content and press <**OK**>.
3. Select a memo type.
4. Select a date.
5. Enter the time for the memo and press <**OK**>.
6. Press <**Yes**> to set an alarm.
7. Enter the time for the alarm to ring and press <**OK**>.
8. Select an alarm tone.

Access your schedule

1. In Idle mode, press [Right].
2. Select a date.
3. Press [Left] or [Right] to view the schedule for that day.

Enter text

ABC, T9, Number, and Symbolic modes

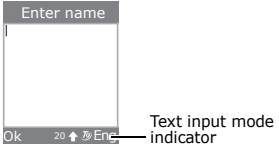
You can enter text for some features such as messaging, Phonebook, or Organiser, using ABC mode, T9 mode, Number mode, and Symbolic mode.

Changing the text input mode

The text input mode indicator displays when the cursor is in a text field.

- Press and hold the right soft key to switch T9 and ABC modes.
- Press [*] to shift case or hold down [#] to switch to Number mode.
- Press and hold [*] to switch to Symbol mode.

Example: Entering a name in Phonebook



Using ABC mode

Press the appropriate key until the character you want appears on the screen.

Key	Characters in order displayed	
	Upper case	Lower case
1	. , - ? ! ’ @ : 1	
2	A B C 2	a b c 2
3	D E F 3	d e f 3
4	G H I 4	g h i 4
5	J K L 5	j k l 5
6	M N O 6	m n o 6
7	P Q R S 7	p q r s 7
8	T U V 8	t u v 8
9	W X Y Z 9	w x y z 9
0	0	

Tips for using ABC mode

- To enter the same letter twice or to enter a different letter on the same key, wait for the cursor to move to the right automatically or press [Right]. Then, enter the next letter.

- Press [#] to insert a space.
- Press [*] to change case. Lower case (No indicator), Initial capital (⇧), and Capital lock (⇪) are available.
- Press [Left] or [Right] to move the cursor.
- Press [**C**] to delete characters one by one. Press and hold [**C**] to clear the display.

Using T9 mode

T9 is a predictive text input mode that allows you to key in any character using single keystrokes.

Entering a word in T9 mode

1. Press [**2**] to [**9**] to start entering a word. Press each key once for each letter.

   For example, press [**4**], [**3**], [**5**], [**5**], and [**6**] to enter HELLO in T9 mode.

   T9 predicts the word that you are typing, and it may change with each key that you press.
2. Enter the whole word before editing or deleting characters.
3. When the word displays correctly, go to step 4. Otherwise, press [**0**] to display alternative word choices for the keys that you have pressed.

   For example, OF and ME use [**6**] and [**3**].
4. Press [#] to insert a space and enter the next word.

Tips for using T9 mode

- Press [**1**] to enter periods or apostrophes automatically.
- Press [*] to change case. Lower case (No indicator), Initial capital (⇧), and Capital lock (⇪) are available.
- Press [Left] or [Right] to move the cursor.
- Press [**C**] to delete characters one by one. Press and hold [**C**] to clear the display.

Adding a new word to the T9 dictionary

This feature may not be available for some languages.

1. Enter the word that you want to add.
2. Press [**0**] to display alternative words for your key presses. When there are no more alternative words, **Spell** appears on the bottom line.

3. Press <**Spell**>.
4. Enter the word you want using ABC mode and press <**OK**>.

Using Number mode

Number mode enables you to enter numbers.

Press the keys corresponding to the digits you want.

Using Symbol mode

Symbol mode enables you to insert symbols.

To	Press
display more symbols	[Up] or [Down].
select a symbol	the corresponding number key.
clear the symbol(s)	[**C**].
insert the symbol(s)	<**OK**>.

Call functions

Advanced calling features

Making a call

1. In Idle mode, enter the area code and phone number.
2. Press [ ].

☑ Press [**C**] to clear the last digit or press and hold [**C**] to clear the whole display. You can move the cursor to edit an incorrect digit.

Making an international call

1. In Idle mode, press and hold [**0**]. The **+** character appears.
2. Enter the country code, area code, and phone number, then press [ ].

Redialling recent numbers

1. In Idle mode, press [ ] to display the list of recent numbers.
2. Scroll to the number you want and press [ ].

Making a call from Phonebook

Once you have stored a number in Phonebook, you can dial the number by selecting it from Phonebook. ▶ p. 26

You can also use the speed dial feature to assign your most frequently called numbers to specific number keys. ▶ p. 28

Dialling a number from the SIM card

1. In Idle mode, enter the location number for the phone number you want and press [#].
2. Press [Up] or [Down] to scroll through other numbers.
3. Press <**Dial**> or [ ] to dial the number you want.

Ending a call

Close the phone or press [ ].

Answering a call

When you receive an incoming call, the phone rings and displays the incoming call image.

Press [ ] or <**Accept**> to answer the call.

Tips for answering a call

- When **Anykey answer** in the **Phone settings** menu is active, you can press any key to answer a call, except for [ ] and <**Reject**>. ▶ p. 63
- Press <**Reject**> or [ ] to reject a call.
- Press and hold [∧/∨] (▶ p. 9) to mute the ringer.

Viewing missed calls

If you have missed calls, the screen displays how many calls you have missed.

1. Press <**Missed**>.
2. If necessary, scroll through the missed calls.
3. Press [ ] to dial the number you want.

Using the headset

Use the headset to make or answer calls without holding the phone.

Connect the headset to the jack on the right side of the phone.

The buttons on the headset work as listed below:

To	Press
redial the last call	the button twice.
answer a call	and hold the button.
end a call	and hold the button.

Options during a call

You can access a number of functions during a call.

Adjusting the volume during a call

Use [⌃/⌄] to adjust the earpiece volume during a call.

Press [⌃] to increase the volume level and [⌄] to decrease the volume level. ▶ p. 9

Making a second call

You can make another call if your network supports it.

1. Press <**Hold**> to put the call on hold.
2. Make the second call in the normal way.
3. Press <**Swap**> to switch between the calls.
4. Press <**Options**> and select **End held call** to end the call on hold.
5. To end the current call, press [ ].

Answering a second call

You can answer an incoming call while already on the phone, if your network supports it and you have activated the call waiting feature. ▶ p. 33

1. Press [ ] to answer the call. The first call is automatically put on hold.
2. Press <**Options**> and select **Swap** to switch between the calls.
3. Press <**Options**> and select **End held call** to end the call on hold.
4. To end the current call, press [ ].

Transferring a call

You can transfer the current call to the call on hold if this service is supported by the network, so that disconnected from both of them.

Press <**Options**> and select **Transfer**.

Using the loudspeaker

You can talk and listen with the phone a short distance away without holding the phone to your ear.

Press <**Options**> and select **Speaker on** or **Normal**.

Using the voice clarity feature

This feature increases the microphone's sensitivity so that the person with when you are speaking can hear you clearly even though you may be whispering.

Press <**Options**> and select **Voiceclarity on** or **Voiceclarity off**.

Placing a call on hold/Retrieving

Press <**Options**> and select **Hold**, or press <**Retrieve**> to place the call on hold or retrieve the call.

Switching off the microphone (Mute mode)

You can temporarily switch off your phone's microphone so that the person on the phone cannot hear you.

Press <**Options**> and select **Mute** or **Unmute**.

Muting or sending key tones

You can turn the key tones off or on.

Press <**Options**> and select **Mute keys** or **Send keys**.

> ☑ To communicate with answering machines or computerised telephone systems, **Send keys** must be selected.

Searching for a number in Phonebook

You can access the **Phonebook** menu to locate or store entries. ▶ p. 26

Press <**Options**> and select **Phonebook**.

Sending a sequence of DTMF tones

Dual tone multi-frequency (DTMF) tones are the tones used in phones for tone dialling.

You can send DTMF tones as a group after entering the entire number you need to send or retrieving a number from Phonebook. This feature is helpful for entering a password or an account number when you call an automated system, like a banking service.

1. When connected with a teleservice system, press <**Options**> and select **Send DTMF**.
2. Enter the number you need to send and press <**OK**>.

Using the message service

You can access the **Messages** menu to read an incoming message and send a new message. ▶ p. 36

Press <**Options**> and select **Message**.

Recording the conversation

You can record your conversation during a call. You can find conversation you have recorded on the **Voices** menu (Memo 7.6.2).

Press <**Options**> and select **Conv. Record**.

Using the SIM-AT(SIM Application Toolkit)

This menu is available if you use a SIM card in your phone. A SIM card provides services such as news, weather, sports, entertainment, and location services.

For details, see your SIM card instructions or contact your service provider.

Making a multi-party call

Use this feature to allow as many as six people to join a multi-party call, or conference call.

Your service provider must support multi-party calls for you to use this feature.

Setting up a multi-party call

1. Call the first participant.
2. Call the second participant. The first call is automatically put on hold.
3. Press <**Options**> and select **Join**. The first participant is added to the multi-party call.
4. If desired, call another person or answer an incoming call.
5. Press <**Options**> and select **Join**.
6. Repeat steps 4 and 5 as desired.

Having a private conversation with one participant

1. Press <**Options**> and select **Split**.
2. Select a name or number from the participant list.

   You can talk privately with that person, while the other participants converse with each other.
3. To return to the multi-party call, press <**Options**> and select **Join**.

Dropping one participant

1. Press <**Options**> and select **Remove**.
2. Select a name or number from the participant list.

   The participant is dropped from the call, but the call continues with the other parties.
3. Close the phone or press [ ] to end the multi-party call.

Menu functions

All menu options listed

Phonebook

You can store phone numbers on your SIM card and in your phone's memory. The SIM card and phone's memory are physically separate, but they are used as a single entity called Phonebook.

You can manage your Phonebook entries and access the service directory in the **Phonebook** menu

To access this menu, press <**Phonebook**> in Idle mode.

Find name *(Phonebook 1)*

Use this menu to search for numbers in Phonebook.

☑ Press <**Phonebook**> in Idle mode to quickly access this menu.

Finding an entry

1. Enter the first few letters of the name that you want to find.

2. Select the name you want from the list.
3. Press [ ] to dial the number, or <**Options**> to access Phonebook options.

Using Phonebook entry options

While viewing an entry in Phonebook, press <**Options**> to access the following options:

> ☑ Depending on the category you selected, available options vary.

- **Edit number**: edit the selected number.
- **Change name**: change the assigned name.
- **Send message**: send an SMS.
- **Copy**: copy the number to the phone's memory or SIM card.
- **Send via infrared**: send the entry via infrared port.
- **Delete entry**: delete the entry.

Editing entry information in the phone's memory

1. Select an entry and scroll to a category. The following options are available:
   - **Mobile**/**Home**/**Office**/**Fax**/**Other**: add a number in any category.
   - **E-Mail**: assign an e-mail address.
   - **Note**: add a memo about the person.
   - **Group**: assign the number to a caller group.
   - **Graphic**: assign an image as a caller ID image to alert you to a call from the number.
   - **Alert**: assign a unique ringer melody to alert you to a call from the number.
2. Press <**Options**> or <**Edit**> to change information.

Add entry *(Phonebook 2)*

Use this menu to add a new entry to Phonebook.

Storing a number in the phone's memory

1. Enter a phone number and press <**Save**>.
2. Select **Phone**.
3. Select a phone number type.

4. Enter a name and press <**OK**>.

Storing a number on the SIM card

1. Enter a phone number and press <**Save**>.
2. Select **SIM**.
3. Enter a name and press <**OK**>.
4. If necessary, change a location number.
5. Press <**OK**> to save the contact.

Speed-dial list *(Phonebook 3)*

Use this menu to assign speed dial numbers (2 to 9) for eight of your most frequently called numbers.

Assigning speed dial entries

1. Select a key location from **2** to **9**. Key **1** is reserved for your voice mail server.
2. Select **Edit number**
3. Enter a phone number.

   If necessary, press <**Phonebook**> to select a entry from the Phonebook list.
4. Press <**OK**>.

Managing speed dial entries

While viewing the Speed dial screen, press <**Select**> to access the following options:

- **Edit number**: assign a number to an unassigned key.
- **Change name**: assign a different name to an assigned key.
- **Delete**: clear a speed dial setting.

Dialling speed dial entries

Press and hold the appropriate key in Idle mode.

Copy all to phone *(Phonebook 4)*

Use this menu to copy all of the numbers stored in the SIM card to the phone's memory.

Delete all *(Phonebook 5)*

Use this menu to delete entries stored in the SIM card or in the phone's memory. You can also delete all entries at one time.

Own number *(Phonebook 6)*

Use this feature to check your phone numbers, or to assign a name to each of the numbers.

Changes made here do not affect the actual subscriber numbers on your SIM card.

In each location, the following options are available:

Edit number: enter your phone number.

Change name: enter a name for the number.

Delete: delete the assigned number and name.

Group setting *(Phonebook 7)*

Use this menu to change the properties of caller groups.

From each caller group, the following options are available:

- **Melody**: select a ringer melody to alert you when a call comes in from a member of the group.
- **Change name**: change the group name.
- **View image**: view an image to be displayed when a call comes in from a member of the group.

Memory status *(Phonebook 8)*

Use this menu to check the number of entries you have saved and the total number of entries you can save in the phone's memory and on the SIM card.

Service directory *(Phonebook 9)*

This menu is available if your SIM card supports Service Dialling Numbers (SDN). Use this menu to view the list of SDNs assigned by your service provider, including emergency numbers, directory enquiries, and voice mail numbers.

Scroll to the number you want and press <**Dial**> or [ ].

SIM-AT (SIM Application Toolkit)

(Menu 1)

This menu is available if you use a SIM-AT card that provides additional services, such as news, weather, sports, entertainment, and location services. Available services may vary, depending on your service provider's plans.

For details, see your SIM card instructions or contact your service provider.

Call records *(Menu 2)*

Use this menu to view the calls you have dialled, received, or missed, the length of your calls, and the cost of your calls.

To access this menu, press <**Menu**> in Idle mode and select **Call records**.

Missed calls *(Menu 2.1)*

This menu displays the 20 most recently received calls that you did not answer.

Accessing a call record

1. Press [Up] or [Down] to scroll through the call list.
2. Press [ ] to dial a number, or <**Select**> to view the details of a call.

Using call record options

While viewing the call details, press <**Options**> to access the following options:

- **Delete**: delete the selected call record.
- **Delete all**: delete all call records.
- **Paste**: add the number to Phonebook.

Received calls *(Menu 2.2)*

This menu displays the 20 most recent calls you have received.

Dialled calls *(Menu 2.3)*

This menu displays the 20 most recent calls you have dialled.

Delete all *(Menu 2.4)*

Use this menu to delete all of the records in each call type.

1. Press <**Select**> to check the call type(s) to clear.
2. Press <**OK**>.
3. Press <**Yes**> to confirm the deletion.

Call time *(Menu 2.5)*

This menu displays the time log for calls made and received. The actual time invoiced by your service provider will vary.

- **Last call time**: check the length of your last call.
- **Total sent**: check the total length of all the calls you have dialled.
- **Total received**: check the total length of all the you have calls received.
- **Reset timers**: reset the call timers. You need to enter the phone password.

☑ The password is preset to **00000000**. You can change this password. ▶ p. 61

Call costs *(Menu 2.6)*

This network feature displays the cost of calls. This menu is available only if your SIM card supports this feature. Note that this is not intended to be used for billing purposes.

- **Last call cost**: check the cost of your last call.
- **Total cost**: check the total cost of all of your calls. If the total cost exceeds the maximum cost set in **Set max cost**, you must reset the counter before you can make another call.
- **Max cost**: check the maximum cost limit set in **Set max cost**.
- **Reset counters**: reset the cost counters. You need to enter your PIN2.

- **Set max cost**: set the maximum cost authorised for your calls. You need to enter your PIN2.
- **Price/Unit**: set the price per unit that is applied when the cost of your calls is calculated. You need to enter your PIN2.

Network services *(Menu 3)*

Use this menu to access network services. Please contact your service provider to check their availability and subscribe to them, if you wish.

Call diverting *(Menu 3.1)*

This network service reroutes incoming calls to a phone number that you specify.

1. Select a call diverting option:
   - **Divert always**: divert all calls.
   - **Busy**: divert calls when you are on another call.
   - **No reply**: divert calls when you do not answer the phone.
   - **Unreachable**: divert calls when you are not in an area covered by your service provider or when your phone is switched off.
   - **Cancel all**: cancel all call diverting options.
2. Select the type of calls to be diverted.
3. To activate call diverting, press <**Activate**>.

   Otherwise, press <**Remove**>.
4. Enter the number to which calls are to be diverted and press <**OK**>.
5. If you selected **No reply**, select the length of time the network delays before diverting a call and press <**Select**>.

Call barring *(Menu 3.2)*

This network service allows you to restrict your calls.

1. Select a call barring option:
   - **All outgoing**: prohibit all outgoing calls.
   - **International**: prohibit international calls.
   - **International except to home**: only allow calls to numbers within the current country when you are abroad, and to your home country, defined as where your home network provider is located.
   - **All incoming**: prohibit incoming calls.

- **Incoming while abroad**: prohibit incoming calls when you use your phone outside of your home country.
- **Cancel all**: cancel all call barring settings, allowing to be sent and received normally.
- **Change barring password**: change the call barring password obtained from your service provider.

2. Select the type of calls to be barred.
3. Press <**Activate**>. To deactivate call barring, press <**Deactivate**>.
4. Enter the call barring password supplied by your service provider and press <**OK**>.

Call waiting *(Menu 3.3)*

This network service informs you when someone is trying to reach you while you are on another call.

1. Select the type of calls to which the call waiting option will apply.
2. Press <**Activate**>. To deactivate call waiting, press <**Deactivate**>.

Network Selection *(Menu 3.4)*

This network service allows you to either automatically or manually select the network used when roaming outside of your home area.

You can select a network other than your home network only if there is a valid roaming agreement between the two.

- **Automatic**: connect to the first available network when roaming.
- **Manual**: select the network you want.

Caller ID *(Menu 3.5)*

This network service allows you to prevent your phone number from being displayed on the phone of the person being called. However, some networks do not allow the user to change this setting.

- **Default**: use the default setting provided by the network.
- **Hide number**: ensure your number does not display on the other person's phone.
- **Send number**: send your number each time you make a call.

Band selection *(Menu 3.6)*

For the phone to make and receive phone calls, it must register with an available network. Your phone can handle any of the following types of networks: Combined GSM 900/1800, GSM 1900, and Triple band.

The country where you purchased your phone determines the default band that it uses. When you travel abroad, you must remember to change to an appropriate band.

When you select a new band, your phone automatically searches for all available networks. Your phone registers with a preferred network within the band.

Active line *(Menu 3.7)*

Some SIM cards may be used with two subscriber numbers. If your SIM card supports it, use this menu to select the line that is used to make calls. Calls can be answered on both lines, regardless of the selected line.

Sound settings *(Menu 4)*

Use this menu to customise various sound settings.

Incoming calls *(Menu 4.1)*

Use this menu to select a volume level and alert type for incoming calls.

- **Default melodies**: select a ring tone for the call ringer from the default melodies.
- **My sounds**: select a ring tone for the call from melodies received in messages, downloaded from wireless web, or imported via Samsung PC Studio PC software.
- **Ring volume**: select a ringer volume.
- **Alert type**: specify how you are to be informed of incoming calls.

  Melody: the phone rings using the selected ring tone.

  Vibration: the phone vibrates but not rings.

  Vibration then melody: the phone vibrates three times and then starts ringing.

Messages *(Menu 4.2)*

Use this menu to set up the ringer for incoming SMS messages or MMS messages.

- **Tone**: select one of several message tones.
- **Alert type**: specify how you are informed of any incoming messages.
- **Repetition**: specify how often the phone informs you of a new message.

Power on/off *(Menu 4.3)*

Use this menu to turn on or off the melody that the phone sounds when it is switched on or off.

Connection tone *(Menu 4.4)*

Use this menu to set the phone to beep when it is connected to the system.

Key tone *(Menu 4.5)*

Use this menu to select the tone that the phone sounds when you press a key.

☑ You can adjust the keypad tone volume using [⌃/⌄] in Idle mode.

Minute minder *(Menu 4.6)*

Use this menu to set the phone to beep every minute during an outgoing call to keep you informed of the length of your call.

Quiet mode *(Menu 4.7)*

Use this menu to set how the phone acts to alert you to a specific event in Quiet mode, instead of making sounds.

- **Vibration**: set the phone to vibrate.
- **Mute**: mute all sound settings.

Alerts on call *(Menu 4.8)*

Use this menu to set the phone to beep when you receive a new message or when the time for an alarm comes during a call.

Messages *(Menu 5)*

Use the **Messages** menu to send and receive short messages or multimedia messages. You can also use WAP push message, Voice mail, and Cell broadcast message features.

To access this menu, press <**Menu**> in Idle mode and select **Messages**.

Short messages *(Menu 5.1)*

Short Message Service (SMS) allows you to send or receive text messages including pictures, audio clips, and animated images.

> ☑ The maximum number of characters allowed in a short message varies by service provider. If your message exceeds the maximum number of characters, the phone will split the message.

Create *(Menu 5.1.1)*

You can create and send a text message.

1. Enter your message.

   Use of Uni-code character, such as 'â', will reduce the maximum number of characters in a message to about half.

2. Press <**Options**> to access the following options:
   - **Send**: send the message.
   - **Text**: change the text attributes.
   - **Add media**: add a picture, animated image, or a melody to the message.
   - **Preset messages**: retrieve a text template.
   - **Save message**: save the message in the Outbox.
3. When you finish, press <**Options**> and select **Send**.
4. Enter a destination number and Press <**OK**> to send the message.
5. To send the message to more than one recipient, press [Down] and fill in additional destination fields.
6. Press <**Send**>.

Inbox *(Menu 5.1.2)*

You can view received text messages in this menu.

While viewing a message, press <**Options**> to access the following options:

- **Delete**: delete the message.
- **Message reply**: reply to the sender.

- **Call back**: call the sender.
- **Cut address**: extract URLs, e-mail addresses, or phone numbers from the message.
- **Send**: forward the message.
- **Edit**: edit the message.
- **Extract media**: extract media items from the message to your phone's memory.
- **Transfer**: move the message between the SIM card and the phone's memory.

Outbox *(Menu 5.1.3)*

You can view sent or saved text messages.

While viewing a message, press <**Options**> to access the following options:

- **Delete**: delete the message.
- **Cut address**: extract URLs, e-mail addresses, or phone numbers from the message.
- **Send**: send or resend the message.
- **Edit**: edit the message.
- **Transfer**: move the message between the SIM card and the phone's memory.

Delete all *(Menu 5.1.4)*

Use this menu to delete all of your messages in each message box.

1. Press <**Select**> to check the message boxes to be cleared.
2. Press <**OK**>.
3. Press <**Yes**> to confirm the deletion.

Multimedia messages *(Menu 5.2)*

Multimedia Message Service (MMS) delivers messages containing a combination of text, image, voice, and sound from phone to phone or from phone to e-mail.

Create *(Menu 5.2.1)*

You can create and send an MMS message.

1. Press <**Add**> on the **Subject** line.
2. Enter a message subject and press <**OK**>.
3. Move to the **Picture** line and press <**Add**>.
4. Select **Create New** and take a new photo, or select an image category and select an image item.
5. Move to the **Sound** line and press <**Add**>.

6. Select **Record new** and record a new sound, or select a sound category and select a sound clip.
7. Move to the **Message** line and press <**Add**>.
8. Enter the message text.
9. Press <**Opt.**> and select **Done**.
10. Press <**Opt.**> to access the following options:
    - **Preview**: display the message you have created.
    - **Send**: forward the message.
    - **Add page**: add pages. Move to each page by pressing [Left] or [Right] on the message screen.
    - **Page timing**: specify how long a page displays. After the specified time, the display automatically scrolls to the next page.
    - **Text effect**: format the text colour, size, or style.
    - **Clear subject**/**picture**/**sound**/**message**: clear the subject, images, sound, or text.
    - **Delete page**: delete an added page.
    - **Save message**: save the message in the **Draft** or **My folder** box.
11. When you have finished, press <**Options**> and select **Send**.
12. Select a destination field and enter a phone number or e-mail address.

    To send the message to more than one recipient, press [Down] and fill in additional destination fields.
13. Press <**Send**>.

Inbox *(Menu 5.2.2)*

This menu displays MMS messages that you have received. The following icons tell you the message status:

- has been read
- has not been read
- is being retrieved from the server
- Notification that you have read
- Notification that you have not read

While viewing a message, press <**Opt.**> to access the following options:

- **Delete**: delete the message.
- **Replay**: replay the message.

- **Reply**: send a reply to the sender.
- **Reply all**: send a reply to the sender and all of the recipients in the **To** and **Cc** field.
- **Forward**: forward the message to another person. If the message contains media purchased on the Internet, forwarding is not available.
- **Call back**: call the sender.
- **Cut media**: save media items from the message to your phone's memory.
- **Cut address**: extract URLs, e-mail addresses, or phone numbers from the message.
- **Properties**: view the message properties.
- **Move to My folder**: move the message to the **My folder** box.

> ☑ When you select a notification, you can access **Retrieve** to retrieve the message from the MMS server.

Outbox *(Menu 5.2.3)*

This menu displays MMS messages that you have sent. The following icons tell you the message status:

- currently being sent
- sent
- your phone couldn't send
- opened by the recipient

While viewing a message, press <**Opt.**> to access the following options:

- **Delete**: delete the message.
- **Replay**: replay the message.
- **Send**: send or resend the message.
- **Properties**: view the message properties.
- **Move to My folder**: move the message to the **My folder** box.

Draft *(Menu 5.2.4)*

After creating a multimedia message, you can store it in this message box for sending later. Messages interrupted while created are also saved in this message box.

While viewing a message, press <**Opt.**> to access the following options:

- **Send**: send the message.
- **Replay**: replay the message.
- **Delete**: delete the message.

- **Properties**: view the message properties.

My folder *(Menu 5.2.5)*

In this menu, you access messages you have moved from Inbox or Outbox, or you have saved while creating. While viewing a message, press <**Opt.**> to access the following options:

- **Delete**: delete the message.
- **Replay**: replay the message.
- **Send**: send or resend the message.
- **Cut media**: save media items from the message to your phone's memory.
- **Cut address**: extract URLs, e-mail addresses, or phone numbers from the message.
- **Properties**: view the message properties.

Delete all *(Menu 5.2.6)*

Use this menu to delete all of the messages in each message box.

1. Press <**Select**> to check the message boxes to be cleared.
2. Press <**OK**>.
3. Press <**Yes**> to confirm the deletion.

Push messages *(Menu 5.3)*

Use this menu to access messages from the WAP server.

- **Inbox**: view push messages you have received.
- **Settings**: determine whether or not your phone receives push messages.

  Always: the phone receives push messages.

  Never: the phone rejects push messages.

  Optional: the phone receives push messages from the service centre set in this option.
- **Delete all**: delete all of push messages.

Preset messages *(Menu 5.4)*

Use this menu to preset a maximum of 10 frequently used messages.

1. Select an empty location.
2. Enter the message and press <**OK**>.

Voice mail *(Menu 5.5)*

Use this menu to store the number of the voice mail server and access your voice mails.

> ☑ You must enter the voice server number before you can access your voice mails. Your service provider can give the voice server number.

- **Connect to voice mail**: connect to the voice server to allow you to listen to your messages. You can also connect to the voice mail server by pressing and holding [**1**] in Idle mode.
- **Voice server number**: change or delete the voice mail server name and number.

Broadcast *(Menu 5.6)*

The Cell Broadcast service delivers short messages on various topics such as the weather or traffic.

Use this menu to change the settings for the service and to access broadcast messages.

- **Read**: open received messages.

  The **Temporary** box saves network messages until the phone is switched off. Press <**Options**> and select **Save** when a text notification appears to save to the **Archive** box.

  The **Archive** box saves network messages indefinitely.
- **Receive**: enable or disable the reception of broadcast messages.
- **Channel**: specify the channels from which you receive broadcast messages.
- **Language**: select the language in which broadcast messages display.

Please contact your service provider for details.

Settings *(Menu 5.7)*

Use this menu to set up various options for using messaging service.

Short messages *(Menu 5.7.1)*

You can configure default SMS settings for sending or receiving messages.

- **Service centre**: store or change the number of your message centre.
- **Validity period**: set the length of time your messages are stored in the SMS centre while attempts are made to deliver them.
- **Message type**: set the default message type.
- **Reply path**: allow the recipient to reply to you through your message centre.
- **Delivery report**: set the network to inform you when your message has been delivered.
- **Character support**: select a character encoding type. If you select **Automatic**, the phone switches the encoding type from **GSM-alphabet** to **Uni-code** if you enter a **Uni-code** character. Use of **Uni-code** encoding will reduce the maximum number of characters in a message to about half.

Multimedia message *(Menu 5.7.2)*

You can configure default MMS settings for sending or receiving messages.

- **Send settings**: set up the following options for sending a multimedia message:

  Priority: set the priority level of your messages.

  Validity period: set the length of time your messages are stored in the message centre.

  Delivery after: set a time delay before messages are sent.

  Address hiding: set your address to be hidden from the recipient's phone.

  Delivery report: set the network to inform you when your message has been delivered.

  Read reply: determine whether or not the phone sends a read-reply request.
- **Receive settings**: set up the following options for receiving a multimedia message.

  Msg. reception: set how you receive a message.

  Anonymous reject: reject messages from anonymous senders.

  Adverts reject: reject advertisements.

  Report allowed: send a delivery report from the network to the sender.

- **MMS profiles**: configure required network settings for MMS.

  ☑ Check with your service provider before you change any MMS settings on your phone.

  Current profile: select a profile.

  Profile setting: customise the following options for each profile:

  - **Profile name**: assign a name to the MMS profile.
  - **Server URL**: enter the address of your MMS server.
  - **Proxy use**: connect to the GPRS network using the proxy server.
  - **GPRS setting**: customise the settings required for connecting to the GPRS network.

    IP address: (when **Proxy use** is set to **Enable**) enter the gateway address.

    IP port: (when **Proxy use** is set to **Enable**) enter the port number.

    APN: enter the access point name of the GPRS network gateway.

    Login ID: enter the User ID.

    Password: enter the password.

Memory status *(Menu 5.8)*

You can view the number of short messages in the both SIM card and phone's memory.

You can check the total amount of memory for Camera, Media box, and Multimedia message and the amount of memory currently in use for multimedia messages.

Fun box *(Menu 6)*

The **Fun box** menu allows you to use the WAP browser, play Java games, and access images and sounds stored in the phone's memory.

To access this menu, press <**Menu**> in Idle mode and select **Fun box**.

WWW services *(Menu 6.1)*

The Wireless Application Protocol (WAP) browser on your phone allows you to access the wireless web. Using the WAP browser, you can access updated information and a wide variety of media content, such as wallpapers and ring tones.

Home *(Menu 6.1.1)*

Use this menu to connect your phone to the network and load the homepage of the wireless web service provider. You can also press [i/OK] in Idle mode.

Navigating with the WAP browser

To	Press
scroll through browser items	[Up] or [Down].
select a browser item	< ✓ >.
return to the previous page	< ↺ > or [**C**].
return to the homepage	[*] and select **Home**.

Selecting and using browser menu options

1. Press <**Menu**> and select **Browser Menu**. Or select the on the top of the screen.
2. Select one of the following browser options:
   - **Back**: go back to the previous page.
   - **Home**: go back to the homepage.
   - **Exit**: exit the WAP browser.
   - **Reload**: reload the current page.
   - **Show URL**: display the URL address of the current web page. You can also set the current page as the homepage for the WAP browser.
   - **About...**: view version information for your WAP browser.

Using WAP page options

From any WAP page, press [#] to access the following options:

- **Goto URL**: enter a URL address manually.
- **Bookmark**: switch to the **Bookmark** menu. ▶ Menu 6.1.2
- **Messages**: check the **Inbox** and **Outbox** boxes in the **Short messages** menu. You can also create and send a new SMS message. ▶ p. 36
- **Media box**: switch to the **Media box** menu. ▶ p. 47

Exiting the WAP browser

Press [ ] to exit the browser.

Bookmark *(Menu 6.1.2)*

Use this menu to save URL addresses to quickly access a website.

Adding a bookmark

1. Select an empty location.
2. Enter a URL address for the bookmark and press <**OK**>.
3. Enter a name for the bookmark.
4. Press <**OK**> to save the bookmark.

Using bookmark options

After saving an item, press <**Select**> to access the following options:

- **Go**: access the bookmarked page.
- **Edit**: edit the address and name of the bookmark.
- **Delete**: delete the bookmark.

Go to URL *(Menu 6.1.3)*

Use this menu to manually enter the URL address of a website and access the website.

Clear cache *(Menu 6.1.4)*

Use this menu to clear the cache, which is the temporary memory that stores the web pages you have recently accessed.

Proxy settings *(Menu 6.1.5)*

Use this menu to set up proxy servers the phone uses to launch the WAP browser. Your service provider can tell you if your network requires a proxy server, and they can give you the appropriate settings. Contact your service provider for details about your settings options.

For each proxy server, the following options are available:

> ☑ Check with your service provider before you change any settings on your phone.

- **Profile name**: assign a name to the HTTP proxy server.
- **Home URL**: set the address of your homepage.
- **Bearer**: select a bearer for each type of network address accessed.
- **Proxy use**: connect to the GPRS network using the proxy server.
- **GPRS setting**: customise the following GPRS network settings:

  IP address: enter the gateway address.

  IP port: enter the port number.

  APN: enter the access point name of the GPRS network gateway.

  Login ID: enter the User ID.

  Password: enter the password.
- **GSM setting**: customise the following GSM network settings:

  IP address: enter the gateway address.

  IP port: enter the port number.

  Dial number: enter the PPP server phone number.

  Login ID: enter the user ID.

  Password: enter the password.

  Data call type: select a data call type.

Current proxy *(Menu 6.1.6)*

Use this menu to activate one of the proxy servers you have set up.

Media box *(Menu 6.2)*

The **Media box** menu allows you to access images, voice memos, and sounds stored in the phone's memory.

Photos *(Menu 6.2.1)*

Use this menu to access photos you have taken using your camera. ▶ p. 58

Downloaded Images *(Menu 6.2.2)*

This menu displays images downloaded from the wireless web or received in messages.

While accessing an image, press <**Options**> to access the following options:

- **Send**: send the image by MMS.
- **Rename**: change the name of the image.
- **Delete**: delete the image.
- **Set as wallpaper**: set the image as your wallpaper for the idle screen.
- **Properties**: view the properties of the image.

Sounds *(Menu 6.2.3)*

This menu displays sounds recorded, downloaded from the wireless web, or received in messages.

While accessing a sound, press <**Options**> to access the following options:

- **Send**: send the sound by MMS.
- **Rename**: change the name of the sound.
- **Delete**: delete the sound.
- **Set as ringtone**: set the sound as your ring tone.
- **Properties**: view the properties of the sound.

Delete all *(Menu 6.2.4)*

Use this menu to delete all media items in each media box.

Memory status *(Menu 6.2.5)*

You can check the total amount of memory for media items and the amount of memory currently in use in each media box.

JAVA world *(Menu 6.3)*

Use this menu to access and play Java games and to change the network setting required for accessing Java services.

Downloads *(Menu 6.3.1)*

Use this menu to play a Java game.

Playing a game

1. Scroll the game you want on the game list and press <**Options**> and select **Launch**.
2. For **SnowBallFight**, press any key twice to go to the startup screen and press [#] to start a game.

   For **BubbleSmile**, select **START GAME**.

Viewing game information

Scroll to the game you want and press <**Options**>. And then select **Properties**.

Internet settings *(Menu 6.3.2)*

Use this menu to set up the network settings required for accessing the Java server.

- **APN**: enter the access point name.
- **Login ID**: enter the user ID.
- **Password**: enter the password.
- **DNS settings**: enter the DNS (Domain Name Server) address to connect to the JAVA server.

Memory status *(Menu 6.3.3)*

Use this menu to check the amount of memory currently being used and memory available for Java games.

FM radio *(Menu 6.4)*

Use this menu to access the FM radio on your phone. First, you must connect your phone with the headset, which serves as a radio antenna.

Finding and setting radio channels

1. Press <**Options**> and select **Power on** to turn on the radio.
2. Press [Left] or [Right] to move to the frequency of a radio channel.

   The frequency moves by 0.1 MHz increments. Otherwise, hold [Left] or [Right] down to automatically scan through and save available radio frequencies.
3. Scroll to an empty location.
4. Press <**Options**> and select **Add**.
5. Enter a name for the channel and press [i/OK].
6. Enter the channel number to be assigned to the frequency.

Listening to the radio

1. From the FM radio screen, scroll to a radio channel.
2. Press <**Options**> and select **Power on** to turn on the radio.

   Press [∧/∨] to adjust the volume.

   - You can answer an incoming call or use other phone functions while listening to the radio.
   - The quality of the radio broadcast depends on the radio station's coverage in that particular area.
3. To turn off the radio, access the **FM radio** menu and press <**Options**> and select **Power off**.

Using radio options

On the FM radio screen, press <**Options**> to access the following radio options:

- **Power on**/**off**: turn the radio on or off.
- **Add**: add a radio channel. You can store up to 30 channels.
- **Edit**: edit the name or frequency for the channel.

- **Self tuning**: let the phone automatically scan through and save available radio frequencies.
- **Remove**: remove the selected channel or all channels.
- **Speaker on**/**Earphone on**: change the audio mode to the phone's speaker or headset.
- **Volume**: set the radio volume.

Organiser *(Menu 7)*

The Organiser feature enables you to keep track of your schedule and tasks and to make a voice memo. You can also set the time and date and use convenient features, such as alarms, calculator, converter, and stopwatch.

To access this menu, press <**Menu**> in Idle mode and select **Organiser**.

New memo *(Menu 7.1)*

Use this menu create a new memo.

☑ You can quickly access this menu by holding down [**C**] in Idle mode.

Creating a new memo

1. Enter the memo text and press <**OK**>.
2. Select a memo type.
3. Select a date from the calendar.
4. If you selected **Call** in step 2, enter a phone number and press <**OK**>.

5. Enter the time for the memo and press <**OK**>.

> ☑ Your phone is preset to a 24-hour format. You can change the time format. ▶ p. 53

6. Select **AM** or **PM** in 12-hour time format.
7. Press <**Yes**> to set an alarm for the memo.
8. Enter the time for the alarm to ring and press <**OK**>.
9. Select **AM** or **PM** in 12-hour time format.
10. Select an alarm melody. The memo is saved.

Using memo options

After the memo is saved, press <**Options**> to access the following options:

- **Add**: add a new memo.
- **Delete**: delete the current memo.
- **Edit**: edit the memo.
- **Move**: change the date of the memo.
- **Copy**: copy the memo to another date.

Calendar *(Menu 7.2)*

Use this menu to keep track of your monthly schedule.

When you access this menu, the calendar displays with today's date highlighted and selected. On the bottom, the number of memos of each type appears. The following icons indicate the type of memo:

- Scheduled events
- Tasks
- Calls
- Anniversary

Selecting a date in the calendar

- Press [Left] or [Right] to move to another day.
- Press [Up] or [Down] to move to another week.
- Press and hold [Up] or [Down] to move to another month.
- Press and hold [Left] or [Right] to move to another year.

Using the calendar options

From the calendar, press <**Options**> to access the following options:

- **Add memo**: add a new memo to the selected date.
- **Go to date**: enter the date you want to access.
- **View all**: access all memos.
- **Delete day**: delete the memos stored for the currently selected date.
- **Delete all**: delete all memos.

Creating memos and using memo options

You can create memos and access memo options as you would in the **New memo** menu.

To do list *(Menu 7.3)*

Use this menu to display task memos you have created. The icons on the list indicate the task status:

- Done
- Undone

While viewing the task memo, press <**Options**> to access the following options:

- **Add**: add a new task memo.
- **Mark**: change the task status.
- **Edit**: edit the memo content.
- **Move**: move the memo to a different date.
- **Copy**: copy the memo to a different date.
- **Delete**: delete the memo.
- **Delete all**: delete all task memos.

Clock *(Menu 7.4)*

Use this menu to change the time and date displayed on your phone. Before setting the time and date, specify your time zone in the **Set world time** menu.

- **Set time**: enter the current time using the number keys.
- **Set date**: enter the current date using the number keys.

- **Set world time**: set your local time zone and find out what time it is in another part of the world.

  ☑ To apply Daylight Savings Time to a time zone, press <**Set**> and select **Set DST**.

- **Set format**: select time and date format.

Alarm *(Menu 7.5)*

Use this menu to set alarms to sound at a specific time.

Setting an alarm

1. Select the type of alarm.
2. Press <**Options**> to access the following options for setting an alarm:
   - **Alarm day**: select the days of the week.
   - **Alarm time**: enter the time for the alarm.

     ☑ Your phone is preset to a 24-hour format. You can change the time format. ▶ p. 53

   - **Alarm tone**: select an alarm melody.
3. Set each alarm options.

Stopping an alarm

- Press <**Confirm**>.
- To stop the morning call alarm and cause it to sound again after 5 minutes, press <**Snooze**> or any key. You can do this a maximum of 5 times.
- To remove an alarm set, access it, press <**Options**> and select **Remove alarm**.

Setting the alarm to ring even if the phone is off

From the Alarm screen, select **Auto power** → **On**.

If the phone is off when it is time for the alarm to ring, the phone switches on and sounds the alarm.

Voice recorder *(Menu 7.6)*

Use this menu to record voice memos. A voice memo can be up to one hour long.

Record *(Menu 7.6.1)*

1. Select ● to start recording.
2. Speak into the microphone.
   - Select ▯▯ to pause the recording.
   - Select ● to resume the recording.

3. When you finish, Select . The voice memo is automatically saved.
4. Press <**Options**> to access the following options:
   - **Send**: send the voice memo via MMS.
   - **Rename**: change the name of the voice memo.
   - **Delete**: delete the voice memo.
   - **Properties**: view the properties of the voice memo.

Voices *(Menu 7.6.2)*

Use this menu to access the list of voice memos you have recorded. Select a voice memo to listen.

During playback,

- Select to pause.
- Select to resume.
- Select to move forward.
- Select to move backward.
- Select to stop.
- Press [⌄/⌄] to adjust the volume.

Delete all *(Menu 7.6.3)*

Use this menu to delete all voice memos in the phone's memory.

When a confirmation message appears, press <**Yes**>.

Settings *(Menu 7.6.4)*

Use this menu to configure settings for recording a voice memo.

- **Recording time**: select a voice recording mode.

  Normal: record a voice memo within the limit of the currently available memory.

  Limit size (for MMS): record a voice memo for adding to an MMS message.
- **Volume**: select a volume level for recording a voice memo.
- **Default name**: change the default prefix for saving a voice memo.

Memory status *(Menu 7.6.5)*

You can check the total amount of memory for voice memos and the amount of memory currently in use.

Calculator *(Menu 7.7)*

Use this menu to perform basic arithmetic functions such as addition, subtraction, multiplication, and division.

1. Enter the first number.

   Press [*] to insert a decimal point.
2. Press [#] to access the math function you want.
3. Enter the second number.
4. Press <**Equal**> to view the result.

Conversion *(Menu 7.8)*

Use this menu for common conversions, such as currency and temperature.

1. Select the converter type you want.
2. Enter the value to be converted and press [Down].
   - Press [*] to insert a decimal point.
   - Press [#] to change the temperature to above zero (+) or below zero (-).
3. Press [Left] or [Right] to select the original unit and press [Down].
4. Press [Left] or [Right] to select the unit you want to convert to.
5. Press <**OK**>.

   The equivalent value for the amount you entered displays.

Timer *(Menu 7.9)*

Use this menu to set a period of time for the phone to count down. The phone will sound an alarm when the specified period of time has expired.

Starting the timer

1. Press <**Set**>.
2. Enter the length of time you want to count down and press <**OK**>.
3. Press <**Start**> to start counting down.

Stopping the timer

- Press any key to stop the timer when it rings.
- Press <**Stop**> on the Timer screen to stop the timer before it rings.

Stopwatch *(Menu 7.10)*

Use this menu to measure elapsed time. The precision of the stopwatch is one one-hundredth of a second. The maximum measurement time is 10 hours.

1. Press <**OK**> to start the timer.
2. Press <**OK**> to check an interval. You can repeat this step for a total of 4 intervals.
3. To reset the timer, press <**Reset**>.

Camera *(Menu 8)*

You can use the camera module embedded in your phone to take photos.

To access this menu, press <**Menu**> in Idle mode and select **Camera**, or press [📷].

- Do not take photos of people without their permission.
- Do not take photos in a place where cameras are not allowed.
- Do not take photos in a place where you may interfere with another person's privacy.

Take photos *(Menu 8.1)*

The camera produces JPEG photos.

When you take a photo in direct sunlight or in bright conditions, shadows may appear on the photo.

Taking a photo

1. Press and hold [📷]. The image to be captured appears on the display.
2. Adjust the image by aiming the camera lens at the subject.
   - Press <▭> to use the camera options. ▶ p. 57
   - Use the keypad to change the camera settings or switch to other modes. ▶ p. 57
3. Press [📷] to take a photo. The photo is saved in the **My photos** folder.

   Hold the phone still for one or two seconds after pressing the camera shutter key to allow the image data to process.

4.

To	Press
use photo options	<**Options**>. ▶ p. 58
delete the photo	<**Delete**>.
return to Capture mode	[**C**].

Using camera options in Capture mode

In Capture mode, press <🗀> to access the following options:

- **Mode**: take a photo in the following modes:

  Normal shot: take a photo in the normal mode.

  Multi-shot: take a series of action stills. Select the number of photos the camera will take.

  Night mode: take a high quality photo in low lighting conditions.

  Capture only: set the phone to automatically return to Capture mode after saving a photo.
- **Effects**: change the colour tone or apply a special effect to the photo.
- **Rotation**: show the mirror image or flip the image vertically.
- **Timer**: set a time delay before the camera takes a photo.
- **Settings**: change the default settings for taking a photo. ▶ p. 59
- **Help**: view the functions of the keys you can use.

Using the keypad in Capture mode

You can use the keypad to customise your camera settings in Capture mode.

Keys	Function
^	Flips the image vertically.
ˇ	Shows the mirror image.
Left/ Right	Adjusts the brightness of the image.
Up/ Down	Zooms in or out.
1	Changes the size of the preview screen.
2	Changes the image size.
3	Changes the image quality.
4	Changes the camera mode.

Keys	Function
5	Changes the colour tone or applies a special effect to the photo.
6	Goes to the **Settings** menu. ▶ p. 59
7	Sets the timer.
8	Shows the photos stored in the **My photos** folder.
9	Shows the help.

Using photo options

After saving a photo, press <**Options**> to access the following options:

- **Send**: send the photo via MMS.
- **Rename**: change the name of the photo.
- **Go to my photos**: display the photos stored in the **My photos** folder.
- **Set as**: set the photo as your wallpaper or as a caller ID image for a Phonebook entry.
- **Protection**: protect the photo from being deleted.
- **Properties**: view the properties of the photo.

My photos *(Menu 8.2)*

Use this menu to access photos you have taken.

Viewing the photos

1. Scroll to a photo and press <**View**>.
2. To go back to the photo list, press <**Multi**>.

Using photos options

Press <**Options**> to access the following options:

☑ Available options vary depending on whether you are looking at the photo list or viewing a photo.

- **Send**: send the photo via MMS.
- **Rename**: change the name of the photo.
- **Delete**: delete the photo.

- **Move to album**: move the photo to the **My album** folder.
- **Set as**: set the photo as your wallpaper or as a caller ID image for a Phonebook entry.
- **Protection**: protect the photo from being deleted.
- **Properties**: view the properties of the photo.

My albums *(Menu 8.3)*

Use this folder to save your photos in separate photo albums.

You can view photos and use options the same way in the **My photos** menu.

Delete all *(Menu 8.4)*

Use this menu to delete photos in each folder and all photos at one time.

1. Press <**Select**> to check the photo categories to be cleared.
2. Press <**OK**>.

Settings *(Menu 8.5)*

Use this menu to configure the default settings for taking a photo.

- **Photo size**: select an image size.
- **Photo quality**: select an image quality.
- **Shutter sound**: select the sound that you hear when you press the shutter, [📷].
- **Default name**: set the default prefix for saving a photo.

Memory status *(Menu 8.6)*

Use this menu to check the amount of memory currently being used and memory available for the camera.

Phone settings *(Menu 9)*

Use this menu to customise your phone settings. You can also reset the settings to their default values.

To access this menu, press <**Menu**> in Idle mode and select **Phone settings**.

Display *(Menu 9.1)*

Use this menu to change settings for the display and light.

Wallpaper *(Menu 9.1.1)*

You can change the background image that is displayed in Idle mode.

Select an image from the following image categories.

- **Default wallpaper**: select one of preset images.
- **Photos**: select one of the photos you have taken.
- **Downloaded images**: select one of the images stored in the images folder.
- **Text position**: select a position. If you do not want text to display in Idle mode, select **Off**.
- **Text style**: select a text style.

Skin *(Menu 9.1.2)*

You can select a skin colour pattern for Menu mode.

Backlight *(Menu 9.1.3)*

You can select the length of time the backlight and the display stay on.

LCD brightness *(Menu 9.1.4)*

You can adjust the brightness of the display for varying lighting conditions.

Dialing font color *(Menu 9.1.5)*

You can select whether or not the dialing font color is used.

Greeting message *(Menu 9.2)*

Use this menu to enter the greeting that is displayed briefly when the phone is switched on.

Language *(Menu 9.3)*

Use this menu to select one of several languages for the display text, and to be used in the text input mode.

Security *(Menu 9.4)*

Use this menu to protect the phone against unauthorised use by managing the several access codes of your phone and SIM card.

> ☑ If you enter an incorrect PIN /PIN 2 three times in succession, the SIM card is blocked. To unblock it you need to enter your PUK/PUK2 (Personal Unblocking Key). The codes are supplied by your network operator.

PIN check *(Menu 9.4.1)*

The 4-to 8-digit PIN (Personal Identification Number) protects your SIM card against unauthorised use. When this feature is enabled, the phone requires your PIN each time it is switched on.

Change PIN *(Menu 9.4.2)*

Use this menu to change your PIN. The PIN Check feature must be enabled to use this feature.

Phone lock *(Menu 9.4.3)*

The Phone Lock feature locks the phone from unauthorised use.

When this feature is enabled, you must enter a 4- to 8-digit phone password each time the phone is switched on.

The password is preset to **00000000**. To change the password, use the **Change password** menu.

Change password *(Menu 9.4.4)*

Use this menu to change your phone password.

Privacy *(Menu 9.4.5)*

Use this menu to lock your media contents, including MMS messages, images, and sounds.

1. Press <**Select**> to check the item(s) to lock.
2. Press <**OK**> to lock the marked items.
3. Enter the phone password and press <**OK**>.

To access a locked item, you need to enter the phone password.

SIM lock *(Menu 9.4.6)*

The SIM Lock feature allows your phone to work only with the current SIM by assigning a SIM lock code. You must enter the SIM lock code to use a different SIM card.

FDN mode *(Menu 9.4.7)*

If supported by your SIM card, Fixed Dialing Number (FDN) mode restricts your outgoing calls to a limited set of phone numbers. When this feature is enabled, you can make calls only to phone numbers stored in Phonebook. To use this feature, you must enter your PIN2.

Change PIN2 *(Menu 9.4.8)*

If supported by your SIM card, the Change PIN2 feature changes your current PIN2.

Auto keypad lock *(Menu 9.5)*

Use this menu to lock the keypad automatically if no key is pressed within a few minutes.

Auto redial *(Menu 9.6)*

Use this menu to set the phone to make up to 10 attempts to redial a phone number after an unsuccessful call.

Voiceclarity *(Menu 9.7)*

Use this menu to increase the microphone's sensitivity to allow the other person on the phone to hear your voice clearly, even though you may be whispering.

Anykey answer *(Menu 9.8)*

Use this menu to answer an incoming call by pressing any key, except [ ] or <**Reject**>.

When this option is set to **Off**, you must press [ ] or <**Accept**> to answer a call.

Infrared activation *(Menu 9.9)*

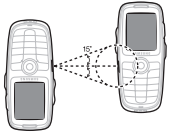
Use this menu to activate the infrared port to send or receive Phonebook entries.

Sending Phonebook data

You can send Phonebook entries by selecting the **Send via infrared** option. ▶ p. 27

Receiving Phonebook data

1. Align the infrared ports on both the devices.
2. Set the infrared feature to **On** on your phone (the IrDA icon displays on the top line).



> ☑ If there is no communication between your phone and the other IrDA-compliant device within 60 seconds of activating the feature, it is automatically deactivated.

3. When you have received entry(ies) from the other person, you are prompted to save the entry(ies).
4. Press <**Save**>.
5. Press <**SIM**> or <**Phone**> to be saved in the memory location you selected.

Reset settings *(Menu 9.10)*

Use this menu to reset the phone settings, and sound settings individually. You can also reset all the settings in your phone at the same time.

1. Press <**Select**> to select the setting category to be reset. And then press <**Yes**>.
2. Enter the phone password and press <**OK**>.

> ☑ The password is preset to 00000000. You can change this password. ▶ p. 61

Solve problems

Help and personal needs

To save the time and expense of an unnecessary service call, perform the simple checks in this section before contacting a service professional.

When you switch on your phone, the following messages may appear:

"Insert SIM card"

- Be sure that the SIM card is correctly installed.

"Phone locked Enter password"

- The automatic locking function has been enabled. You must enter the phone's password before you can use the phone.

"Enter PIN"

- You are using your phone for the first time. You must enter the PIN supplied with the SIM card.
- The PIN Check feature is enabled. Every time the phone is switched on, the PIN has to be entered. To disable this feature, use the **PIN check** menu.

"Enter PUK"

- The PIN code has been entered incorrectly three times in succession, and the phone is now blocked. Enter the PUK supplied by your service provider.

"No Service," "Network Failure," or "Not Done" displays

- The network connection has been lost. You may be in a weak signal area. Move and try again.
- You are trying to access an option for which you have no subscription with your service provider. Contact the service provider for further details.

You have entered a number but it was not dialled

- Be sure that you have pressed [ ].
- Be sure you have accessed the right cellular network.
- Be sure that you have not set an outgoing call barring option.

Your correspondent cannot reach you

- Be sure your phone is switched on. ([ ] pressed for more than one second.)
- Be sure you are accessing the correct cellular network.
- Be sure that you have not set an incoming call barring option.

Your correspondent cannot hear you speaking

- Be sure you have switched off the microphone.
- Be sure you are holding the phone close enough to your mouth. The microphone is located at the bottom of the phone.

The phone starts beeping and "Battery low" flashes on the display

- Your battery is insufficiently charged. Recharge the battery.

The audio quality of the call is poor

- Check the signal strength indicator on the display ( ). The number of bars indicates the signal strength from strong ( ) to weak ( ).

- Try moving the phone slightly or moving closer to a window if you are in a building.

No number is dialled when you re-call a Contacts entry

- Use the Contact Search feature to ensure the number has been stored correctly.
- Re-store the number, if necessary.

If the above guidelines do not help you to solve the problem, take note of:

- The model and serial numbers of your phone
- Your warranty details
- A clear description of the problem

Then contact your local dealer or Samsung after-sales service.

Health and Safety Information

Exposure to Radio Frequency (RF) Signals

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 (FCC) 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 the safety standards that were developed by independent scientific organizations through periodic and through 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 phones employs a unit of measurement known as Specific Absorption Rate (SAR). The SAR limit set by the FCC is 1.6W/kg *.

*In the U.S. and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (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 tests are conducted using standard operating positions specified 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 of the phone.
Before a new model phone 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 (e.g., at the ear and worn on the body) as required by the FCC for each model. 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 printed in the label on the phone.

FCC certification information for this model phone is attached separation paper.

Health and Safety Information

For Body Operation
For body worn operation, this model phone has been tested and meets the FCC RF exposure guidelines when used with a Samsung-supplied or approved accessory designated for this product or when used with and accessory that contains no metal and that positions the handset a minimum from the body.
The minimum distance for this model phone is written in the FCC certification information from the body.
None compliance with the above conditions may violate FCC RF exposure guidelines.

For more Information concerning exposure to radio frequency signals, see the following websites:

Federal Communications Commission (FCC)
http://www.fcc.gov/rfsafety

Cellular Telecommunications Industry Association (CTIA):
http://www.wow-com.com

U.S.Food and Drug Administration (FDA)
http://www.fda.gov/cdrh/consumer

World Health Organization (WHO)
http://www.who.int/peh-emf/en

Health and Safety Information

Precautions When Using Batteries

- Never use any charger or battery that is damaged in any way.
- Use the battery only for its intended purpose.
- If you use the phone near the network's base station, it uses less power; talk and standby time are greatly affected by the signal strength on the cellular network and the parameters set by the network operator.
- Battery charging time depends on the remaining battery charge and the type of battery and charger used. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and standby time) is noticeably shorter than normal, it is time to buy a new battery.
- If left unused, a fully charged battery will discharge itself over time.
- Use only Samsung-approved batteries and recharge your battery only with Samsung-approved chargers. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more than a week, since overcharging may shorten its life.
- Extreme temperatures will affect the charging capacity of your battery: it may require cooling or warming first.
- Do not leave the battery in hot or cold places, such as in a car in summer or winter conditions, as you will reduce the capacity and lifetime of the battery. Always try to keep the battery at room temperature. A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Li-ion batteries are particularly affected by temperatures below 0 °C (32 °F).
- Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (coin, clip or pen) causes a direct connection between the + and – terminals of the battery (metal strips on the battery), for example when you carry a spare battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuiting.
- Dispose of used batteries in accordance with local regulations. Always recycle. Do not dispose of batteries in a fire.

Road Safety

Your wireless phone gives you the powerful ability to communicate by voice, almost anywhere, anytime. But an important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When driving a car, driving is your first responsibility. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips.

Health and Safety Information

1. Get to know your wireless phone and its features, such as speed dial and redial. If available, these features help you to place your call without taking your attention off the road.

2. When available, use a hands-free device. If possible, add an extra layer of convenience and safety to your wireless phone with one of the many hands-free accessories available today.

3. Position your wireless phone within easy reach. Be able to access your wireless phone without removing your eyes from the road. If you get an incoming call at an inconvenient time, let your voice mail answer it for you.

4. 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, ice and even heavy traffic can be hazardous.
5. Do not take notes or look up phone numbers while driving. Jotting down a To Do list or flipping through your phonebook takes your attention away from your primary responsibility, driving safely.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary. If you need to make a call while moving, 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. Make the people with whom you are talking aware that you are driving and suspend conversations that have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Dial the emergency number in the case of fire, traffic accident or medical emergencies. Remember, it is a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. If you see a car accident, crime in progress or other serious emergency where lives are in danger, call the emergency number, as you would want others to do for you.

10. Call roadside assistance or a special non-emergency wireless assistance number when necessary. 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 any other special non-emergency wireless number.

Health and Safety Information

Operating Environment

Remember to follow any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference or danger.

When connecting the phone or any accessory to another device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).

Electronic Devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone. Consult the manufacturer to discuss alternatives.

Pacemakers

Pacemaker manufacturers recommend that a minimum distance of 15 cm (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should always keep the phone more than 15 cm (6 inches) from their pacemaker when the phone is switched on
- Should not carry the phone in a breast pocket
- Should use the ear opposite the pacemaker to minimize potential interference

If you have any reason to suspect that interference is taking place, switch off your phone immediately.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may wish to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical devices, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information. 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.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its

representative regarding your vehicle.
You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities
Switch off your phone in any facility where posted notices require you to do so.

Potentially Explosive Atmospheres

Switch off your phone when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch off the phone while at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel 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), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

Health and Safety Information

Emergency Calls

This phone, like any wireless phone, operates using radio signals, wireless and landline networks as well as user-programmed functions, which cannot guarantee connection in all conditions. Therefore, you should never rely solely on any wireless phone for essential communications (medical emergencies, for example).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone networks or when certain network services and/or phone features are in use. Check with local service providers.

To make an emergency call, proceed as follows.
1. If the phone is not on, switch it on.
2. Key in the emergency number for your present location. Emergency numbers vary by location.
3. Press the <SEND> key.

If certain features are in use (call barring, for example), you may first need to deactivate those features before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your phone may be the only means of communication at the scene of an accident; do not cut off the call until given permission to do so.

Other Important Safety Information

- Only qualified personnel should service the phone or install the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.

- Check regularly that all wireless phone 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 phone, its parts or accessories.

- For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If wireless equipment is improperly installed and the air bag inflates, serious injury could result.

- Switch off your phone before boarding an aircraft. The use of wireless phones in aircraft may be dangerous to the operation of the aircraft, and is illegal.

- Failure to observe these instructions may lead to the suspension or denial of telephone services to the offender, or legal action, or both.

Health and Safety Information

Care and Maintenance

Your phone is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years.

- Keep the phone and all its parts and accessories out of the reach of small children's.

- Keep the phone dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.

- Do not touch the phone with a wet hand while it is charging. Doing so may cause an electric shock to you or damage to the phone.

- Do not use or store the phone in dusty, dirty areas, as its moving parts may be damaged.

- Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

- Do not store the phone in cold areas. When the phone warms up to its normal operating temperature, moisture can form inside the phone, which may damage the phone's electronic circuit boards.

- Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.

- Do not use harsh chemicals, cleaning solvents or strong detergents to clean the phone. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

- Do not paint it. Paint can clog the device's moving parts and prevent proper operation.

- Do not put the phone in or on heating devices, such as a microwave oven, a stove or a radiator. The phone may explode when overheated.

- Use only the supplied or an approved replacement antenna. Unauthorized antennas or modified accessories may damage the phone and violate regulations governing radio devices.

- If the phone, battery, charger or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

Acknowledging Special Precautions and the FCC and Industry Canada Notice

Cautions

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. **FCC Compliance Information**

This device complies with Part 15 of FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received.
Including interference that may cause undesired operation.

Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

Appendix A: 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 safety 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(SAR). The SAR limit set by the FCC is 1.6 W/kg. SAR Tests 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 new model phone 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(e.g., at the ear and worn on the body) as required by the FCC for each model.

The highest SAR values for this model phone as reported to the FCC are Head: 0.289W/Kg, Body-worn: 0.333W/Kg. Body-worn operations are restricted to Samsung-supplied, approved or none Samsung designated accessories that have no metal and must provide at least 1.5cm separation between the device, including its antenna whether extended or retracted, and the user's body. None compliance to the above restrictions may violate FCC RF exposure guidelines

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 A3LSGHX620.

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.

Appendix B: Guide to Safe and Responsible Wireless Phone Use

Cellular Telecommunications & Internet Association

"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.

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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

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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.”

Cellular Telecommunications & Internet Association
For more information, please call 1-888-901-SAFE.
For updates: http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85

Appendix

Appendix C: Consumer Update on Wireless Phones

U.S. Food and Drug Administration

1. 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 well within the FCC's compliance limits.

2. 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.

3. 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 primary subject of the safety questions discussed in this document.

4. 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.

5. 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.

6. 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.

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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.

7. Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

8. Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike “hand-free” kits, these so-called “shields” may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

9. 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.

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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 that no interference occurs when a person uses a compatible phone and a compatible 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.

10. 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.

11. 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.

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12. Which other federal agencies have responsibilities related to potential RF health effects?

Additional information on the safety of RF exposures from various sources can be obtained from the following organizations.

FCC RF Safety Program:
http://www.fcc.gov/oet/rfsafety/

Environmental Protection Agency (EPA):
http://www.epa.gov/radiation/

Occupational Safety and Health Administration's (OSHA):
http://www.osha-slc.gov/SLTC/radiofrequencyradiation/index.html

National Institute for Occupational Safety and Health (NIOSH):
http://www.cdc.gov/niosh/emfpg.html

World health Organization (WHO):
http://www.who.int/peh-emf/

International Commission on Non-Ionizing Radiation Protection:
http://www.icnirp.de

National Radiation Protection Board (UK):
http://www.nrpb.org.uk

Updated 4/3/2002: US Food and Drug Administration
http://www.fda.gov/cellphones