* Depending on the software installed, service provider, or country, some of the descriptions in this guide may not match your phone exactly.
* Depending on your country, your phone and accessories may appear different from the illustrations in this guide.

SAMSUNG ELECTRONICS

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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 calls

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 batteries and accessories, such as headsets and PC data cables. Use of any unauthorised accessories could damage you or 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.

At very high volume, prolonged listening to a headset can damage your hearing.

Qualified service

Only qualified service personnel may repair your phone.

For more detailed safety information, see "Health and safety information" on page 89.

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 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, [ ]
< >	Indicates a soft key, whose function is displayed on the phone screen. For example, <**Menu**>

- **3G**
  Your phone is capable of operating in a 3G environment, allowing much greater data transfer speed, video streaming, and video conferencing.

Special features of your phone

- **DVB-H (Digital Video Broadcasting Handheld)**
  Enjoy DVB-H mobile TV broadcasting services. Rotate your phone's screen and enjoy a large horizontal view.

- **Camera and camcorder**
  Use the camera module on your phone to take a photo or record a video.

- **Media player**
  Play media files on your phone. You can enjoy high quality videos and music.

- **Bluetooth**
  Transfer media files and personal data and connect to other devices using free, wireless Bluetooth technology.

- **Web browser**
  Access the wireless web to get up-to-the-minute information and a wide variety of media content.

- **Get personal with photo caller ID**
  See who's calling you when their very own photo displays.

- **Name card**
  Create name cards with your number and profile. Whenever introducing yourself to others, use this convenient electronic name card.

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

- **E-mail**
  Send and receive e-mails with images, video, and audio attachments.

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

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

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

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Overview of menu functions

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* Shows only if supported by your USIM/SIM card.

** Shows only if a memory card is inserted.

Unpack

Make sure you have each item

Phone

Travel Adapter

Battery

PC Data Cable

PC Link CD

User's Guide

You can obtain various accessories from your local Samsung dealer.

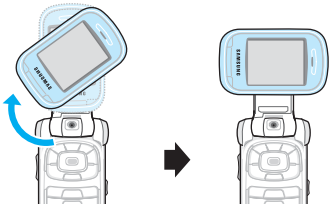
☑ The items supplied with your phone and the accessories available at your Samsung dealer may vary, depending on your country or service provider.

Your phone

Keys, features, and locations

Wide view

To view the display as a wide view screen, simply rotate the LCD compartment 90 degrees.



Get started

First steps to operating your phone

USIM/SIM card information

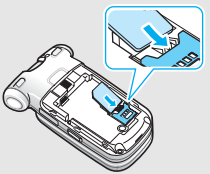
When you subscribe to a cellular network, you receive a plug-in SIM (Subscriber Identity Module) card loaded with your subscription details, such as your PIN, and available optional services. For 3G services, you can purchase a USIM (Universal Subscriber Identity Module) card.

Install and charge the phone

1 Remove the battery cover.

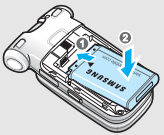
☑ If the phone is already on, first turn it off by pressing and holding [ ].

2 Insert the USIM/SIM card.



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

3 Install the battery.



4 Reattach the battery cover.

5 Plug the travel adapter into the phone.

6 Plug the adapter into a standard AC wall outlet.

7 When the phone is completely charged (the battery icon becomes still), unplug the adapter from the power outlet.

8 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

Switch on	1. Open the phone.
	2. Press and hold [ ].
Do not turn on the phone when mobile phone use is prohibited.	3. If necessary, enter the PIN and press <**Confirm**>.

Switch off	1. Open the phone.
	2. Press and hold [ ].

Keys and display

Keys

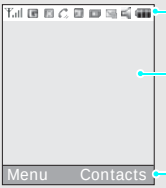
	Make a video call.
	Access the mobile TV service.
	Open the application switch window to open **Call**, **Messages**, and **Internet** without exiting the current application.
	Perform the function indicated on the bottom line of the display.
	In Idle mode, access menu options directly. ▶ p. 80 In Menu mode, scroll through the menu options.
	In Idle mode, turn on the camera. In Menu mode, select a highlighted menu option or confirm input.
	Make or answer a call. In Idle mode, retrieve numbers recently dialled, missed, or received.
	Delete characters from the display or items in an application.

	Press and hold to switch the phone on and off. End a call. In Menu mode, cancel input and return the phone to Idle mode.
	Enter numbers, letters, and some special characters. In Idle mode, press and hold [**1**] to access your voicemail or [**2**] to access your videomail. Press and hold [**0**] to enter an international call prefix.
	Enter special characters. In Idle mode, press and hold [#] to activate or deactivate the Silent profile. Press and hold [*] to enter a pause between numbers.
	Adjust the phone volume. In Idle mode, with the phone open, adjust the keypad tone volume. With the phone closed, press and hold to turn on the display.
	Press and hold to turn on the camera. Take photo or record a video in Camera mode.
	Press and hold to launch or close the media player. Press to pause or resume playback.
	Return to the previous file during playback.
	Skip to the next file during playback.

Display

Layout

The display has 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 soft keys.

Icons*

	Received signal strength
	2.5G (GPRS) network
	Accessing services in 2.5G (GPRS) network; when transferring data, this icon animates.

- EDGE network
- Accessing services in EDGE network
- 3G (UMTS) network
- Accessing services in 3G (UMTS) network; when transferring data, this icon animates.
- Roaming network
- Voice call in progress
- Out of your service area; you cannot make or receive voice calls
- Video call in progress
- Out of your service area; you cannot send or receive video calls
- Bluetooth active; when transferring data, this icon blinks red and blue. ▶ p. 66
- Bluetooth headset or hands-free car kit connected
- Connected to computer via USB port
- Browsing Internet on PC using phone as modem
- Connected to secured web page
- Memory card inserted ▶ p. 24
- New message:
  - : SMS
  - : MMS
  - : E-mail
  - : Voicemail
  - : Videomail
  - : Push
  - : Configuration message
- Profile setting ▶ p. 80
  - : Normal
  - : Meeting
  - : Car
  - : Silent
  - : Outdoor
- Battery power level

* Depending on your country or service provider, the icons shown on the display may vary.

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 select the highlighted option.

Press the right soft key to return to the previous menu level.

Select an option

1. Press a desired soft key.
2. Press the Navigation keys to move to the next or previous option.
3. Press <**Select**> or [OK/*i*] to confirm the function displayed or option highlighted.
4. To exit, choose either of the following methods:
   - Press <**Back**> 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 **Settings** → **Phone** → **Language** → **Screen text**.
2. Select a language.
3. Press <**Save**>.

Call ringer melody

You can change the call ringer by changing the properties of the currently active sound profile.

To change the profile properties:

1. In Idle mode, press <**Menu**> and select **Settings** → **Profiles**.
2. Scroll to the sound profile you are using.
3. Press <**Options**> and select **Edit**.
4. Select **Voice call ringtone** and select a ringtone for voice calls.
5. Select **Video call ringtone** and select a ringtone for video calls.
6. Press <**Options**> and select **Save**.

To change the sound profile:

1. In Idle mode, press <**Menu**> and select **Settings** → **Profiles**.
2. Select the profile you want.

Idle mode Wallpaper

You can set wallpaper for the idle screen on the main display.

1. In Idle mode, press <**Menu**> and select **Settings** → **Display** → **Wallpaper** → **Wallpaper** → **Image**.
2. Scroll to an image folder.
3. Select an image.
4. Press <**OK**> on the preview screen.
5. Press <**Save**>.

Menu shortcuts

You can set the Navigation keys to function as shortcuts to access your favourite menus.

1. In Idle mode, press <**Menu**> and select **Settings** → **Phone** → **Shortcuts**.
2. Select a key.
3. Select a menu to be assigned to the key.

Silent profile

You can quickly activate the Silent profile to avoid disturbing other people.

Press and hold [#] in Idle mode.

Phone lock

You can protect the phone against unauthorised use with a phone password. The phone will require the password on power-up.

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

Make / Answer calls

Make a call

To make a voice call:

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

To make a video call:

1. Enter an area code and phone number.
2. Press [ ] and if the other phone is compatible, the other person appears on the screen.

Answer a call

1. When the phone rings, press [ ].
2. For a video call, press <**Show me**> to allow the other person to see you.
3. To end the call, press [ ].

Adjust the volume during a call

Press [▲/▼].

Step outside the phone

Begin with your camera, the media player, the web, and other special features

Use camera

Take a photo

1. In Idle mode, press [OK/*i*] to turn on the camera.
2. Aim the lens at the subject by rotating the camera lens and make any desired adjustments.

3. Press [OK/*i*] or [ ] to take a photo. The photo is saved automatically.
4. Press [OK/*i*] to take another photo.

View a photo

1. In Idle mode, press [OK/*i*] and select **File manager** → **Images**.
2. Select the photo you want from the **Pictures** folder.

Record a video

1. In Idle mode, press [OK/*i*] to turn on the camera.
2. Press [**1**] to switch to Record mode.
3. Press [OK/*i*] or [📷] to start recording.
4. Press [OK/*i*] or [📷] to stop recording. The video is automatically saved.
5. Press [OK/*i*] to record another video.

Play a video

1. In Idle mode, press [OK/*i*] and select **File manager** → **Videos**.
2. Select the video you want from the **Videos** folder.

Play media files

Copy media files to the phone

Use these methods:

- Download from the wireless web ▶ p. 42
- Download from a computer using the optional Samsung PC Studio ▶ Samsung PC Studio User's Guide
- Receive via Bluetooth ▶ p. 66
- Copy to a memory card and insert the card into the phone ▶ p. 24

Create a play list

1. In Idle mode, press <**Menu**> and select **i.TIM** → **Media player**.
2. Press [OK/*i*].
3. Press <**Options**> and select **Add** → **Folder** or **Files**.
4. Scroll to a media folder by pressing [Left] or [Right].
5. Select the files you want or scroll to the folder you want.
6. Press <**Add**> or <**Select**>.

Play media files

1. From the Play list screen, press [OK/*i*].
2. During playback, use the following keys:
   - OK/*i*: pauses or resumes playback.
   - Up: opens the play list.
   - Left: returns to the previous file. Moves backward in a file when held down.
   - Right: skips to the next file. Skips forward in a file when held down.
   - ▲/▼: adjusts the volume.
3. Press [Down] to stop playback.

Browse the web

Using a built-in web browser, you can easily access the wireless web to get a variety of up-to-date services and information and to download web content.

Launch the browser

In Idle mode, press <**Menu**> and select **Internet** → **Go to homepage**.

Navigate the web

- To scroll through browser items, press [Up] or [Down].
- To select an item, press <**Select**> or [OK/*i*].
- To return to the previous page, press <**Back**>.
- To move to the next page, press <**Options**> and select **Go** → **Forward**.
- To access options, press <**Options**>.

Use Contacts

Add a contact

To the phone's memory:

1. In Idle mode, enter a phone number.
2. Press <**Options**> and select **Save to Contacts** → **Phone** → **New** → a number type.
3. Specify contact information: First name, Last name, Phone number, Work Email, Home Email, Group, Homepage, Birthday, Work address, Home address, and More information (Job title, Department, Company, Nickname, and Notes).
4. Press <**Options**> and select **Save** to save the contact.

To the USIM/SIM card:

1. In Idle mode, enter a phone number.
2. Press <**Options**> and select **Save to Contacts** → **SIM** → **New**.
3. Specify contact information: Name, Phone number, Group (for USIM), and Location number.
4. Press <**Save**> to save the contact.

Find a contact

1. In Idle mode, press <**Contacts**>.
2. Enter the first few letters of the name you want.
3. Select a contact.
4. Scroll to a number and press [ ] to dial. or press [OK/i] to edit contact information.

Create and send your name card

1. In Idle mode, press [OK/*i*] and select **Contacts** → **My namecard**.
2. Specify your contact information.
3. Press <**Options**> and select **Save** to save the name card.
4. To send the name card, access the **My namecard** menu again.
5. Press <**Options**> and select **Send name card** → a sending method.

Send messages

Send a text message (SMS)

1. In Idle mode, press <**Menu**> and select **Messages** → **Create new** → **Text message**.
2. Enter the message text and press [OK/*i*].
3. Enter destination numbers.
4. Press [OK/*i*] to send the message.

Send a multimedia message (MMS)

1. In Idle mode, press <**Menu**> and select **Messages** → **Create new** → **Multimedia message**.
2. Enter the message subject.
3. Select **Text**.
4. Enter the message text and press [OK/*i*].
5. Select **Picture or Video** or **Audio**.
6. Add an image, video clip, or sound clip.
7. Press <**Options**> and select **Send**.
8. Enter destination numbers or e-mail addresses.
9. Press [OK/*i*] to send the message.

Send files by MMS

1. In Idle mode, press <**Menu**> and select **Messages** → **Create new** → **File messenger**.
2. Enter the message subject.
3. Move to the **Message** field.
4. Enter the message text.
5. Move to the **Attach files** line.
6. Press <**Options**> and select **Add files**, **Add name card**, or **Add v-calendar**.
7. Select images, videos, sounds, name cards, calendar items, or tasks.
8. Press <**Options**> and select **Attach**.
9. Press [OK/*i*].
10. Enter destination numbers or e-mail addresses.
11. Press [OK/*i*] to send the message.

Send a postcard

1. In Idle mode, press <**Menu**> and select **Messages** → **Create new** → **TIMClick** → **Postcard**.
2. Select **Greeting msg.**
3. Enter the message text and press [OK/*i*].
4. Select **Picture**.
5. Select a photo.
6. Press [OK/*i*] and specify the destination address: Name, Additional information, Street, ZIP, City, and Country.
7. Press [OK/*i*] to send the postcard.

Send an e-mail

1. In Idle mode, press <**Menu**> and select **Messages** → **Create new** → **Email**.
2. Enter the e-mail subject.
3. Move to the **Message** field.
4. Enter the e-mail text.
5. Move to the **Attach files** line.
6. Press <**Options**> and select **Add files**, **Add name card**, or **Add v-calendar**.
7. Select images, videos, sounds, name cards, calendar items, or tasks.
8. Press <**Options**> and select **Attach**.
9. Press [OK/*i*].
10. Enter e-mail addresses.
11. Press [OK/*i*] to send the e-mail.

View messages

View a text message

When a notification appears:

1. Press <**View**>.
2. Select the message from the Inbox.

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Messages** → **Inbox**.
2. Select an SMS message ( ).

View a multimedia message

When a notification appears:

1. Press <**View**>.
2. Select the message from the Inbox.

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Messages** → **Inbox**.
2. Select an MMS message ( ).

View an e-mail

1. In Idle mode, press <**Menu**> and select **Messages** → **Email inbox**.
2. Press <**Options**> and select **Download** to download new e-mails or headers.
3. Select an e-mail or header.
4. If you selected a header, press <**Options**> and select **Retrieve** to view the body of the e-mail.

Use Bluetooth

Your phone is equipped with Bluetooth technology, enabling you to connect the phone wirelessly to other Bluetooth devices and exchange data with them, talk hands-free, or control the phone remotely.

Turn on Bluetooth

1. In Idle mode, press [OK/*i*] and select **Applications** → **Bluetooth** → **Activation** → **On**.
2. Select **My phone's visibility** → **On** to allow other devices to find your phone.

Search for and pair with a Bluetooth device

1. In Idle mode, press [OK/*i*] and select **Applications** → **Bluetooth** → **My devices** → **Search new device**.
2. Select a device.
3. Enter a Bluetooth PIN or the other device's Bluetooth PIN, if it has, and press <**OK**>.

   When the owner of the other device enters the same code, pairing is complete.

Send data

1. Access an application, **Contacts**, **File manager**, **Calendar**, **Memo**, or **Task**.
2. Select the item you want to send.
3. Press <**Options**> and select **Send name card**/**Send**/ **Send schedule**/**Send task**/ **Send memo** → **Via bluetooth**.
4. Select a device.
5. If necessary, enter the Bluetooth PIN and press <**OK**>.

Receive data

To receive data via Bluetooth, your phone's Bluetooth feature must be active and its visibility must be enabled.

If necessary, press <**Yes**> to confirm that you are willing to receive.

Switch applications

You can switch to other applications from a menu, without closing the menu screen you were using.

Switch to an application

1. While using a menu, press [ ].
2. Select an application.
3. Exit the application to return the display to the one you were previously using.

Available applications

- **Call**: opens the dialling screen.
- **Messages**: accesses the **Messages** menu.
- **Internet**: launches the web browser.

Close all running applications

1. Press [ ].
2. Scroll to **End all?**.
3. Press <**Yes**>.

Use a memory card

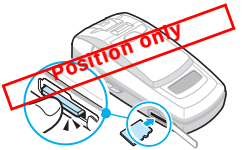
You can use an optional microSD memory card to increase your phone's memory capacity.

Important memory card information

- Frequent erasing and writing will shorten a card's lifespan.
- Do not remove a card from the phone or turn off the phone while data is being accessed or transferred. This could result in loss of data and/or damage to the card or phone.
- Do not subject cards to strong shocks.
- Do not touch card terminals with your fingers or metal objects. If dirty, wipe the card with a soft cloth.
- Keep cards away from small children or pets.
- Do not expose cards in a place subject to electro-static discharge and/or electrical noise.

Insert a memory card

1. Slide a memory card into the card slot, with the label side face up.



2. Press the card until it locks into place.

Remove the memory card

1. Press the card so that it is disengaged from the phone
2. Slide the card out of the slot.

Use a card adapter

Using a card adapter and a USB card reader/writer, you can read the card on a PC.

1. Insert a memory card into a card adapter, and then the adapter into a card reader/writer.
2. Plug the USB connector of the card reader/writer into the USB port on your PC.
3. Access the appropriate memory disk and copy to and from the card.

Enter text

ABC, T9, Number, and Symbol modes

You can enter text in some features, such as Messages, Contacts, or Organiser, using ABC mode, T9 mode, Number mode, and Symbol mode.

Changing the text input mode

- Press and hold [*] to switch between T9 (T9Ab) and ABC (Abc) modes.
- Press [*] to change case or to switch to Number mode (123).
- Press and hold [#] to switch to Symbol mode (SYM).

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.

Other T9 mode operations

- Press [**1**] to enter periods or apostrophes automatically.
- Press the Navigation keys to move the cursor.
- Press [**C**] to delete characters one by one. Press and hold [**C**] to clear the entire 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** displays on the bottom line.
3. Press <**Spell**>.
4. Enter the word you want using ABC mode and press <**Add**>.

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 Ä Å Æ Ç Γ 2	a b c ä à å æ ç Γ 2
3	D E F É Δ 3	d e f è é 3
4	G H I Θ 4	g h i ì 4
5	J K L Λ 5	j k l Λ 5
6	M N O Ñ Ö Ø Ξ 6	m n o ñ ö ò ø Ξ 6
7	P Q R S Π Σ 7	p q r s β Σ 7
8	T U V Ü Φ 8	t u v ü ù Φ 8
9	W X Y Z Ψ Ω 9	w x y z Ψ Ω 9
0	+ = < > € £ $ % & ¥ ¤ 0	

(creating an SMS message with GSM alphabet encoding)

Other ABC mode operations

- 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 the Navigation keys to move the cursor.
- Press [**C**] to delete characters one by one. Press and hold [**C**] to clear the entire display.

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.

   - 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.
   - Press and hold [*] to enter a pause between numbers.

2. Press [ ].
3. When you want to end the call, press [ ].

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 Contacts

Once you have stored a number in Contacts, you can dial the number by selecting it from Contacts. ▶ p. 34

You can also use the speed dial feature to assign your most frequently dialled numbers to specific number keys. ▶ p. 36

You can quickly dial a number from the USIM/SIM card using its location number assigned when stored.

1. In Idle mode, enter the location number for the phone number you want and press [#].
2. Scroll through other numbers, if necessary.
3. Press <**Call**> or [ ] to make a call.

Answering a call

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

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

Tips for answering a call

- When **Anykey answer** is active, you can press any key to answer a call, except for <**Reject**> and [ ]. ▶ p. 81
- When **Active folder** is active, you can simply open the phone. ▶ p. 80
- Press <**Reject**> or [ ] to reject a call.
- Press and hold [▲/▼] to reject a call or mute the ringer, depending on the **Volume key** setting. ▶ p. 81

Viewing missed calls

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

1. Press <**View**>.
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 button on the headset works as follows:

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

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.

Placing a call on hold/Retrieving

Press <**Hold**> to place the call on hold, or <**Unhold**> to retrieve the call.

Making a second call

You can make another call if your network supports this function.

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 **Drop** → **Drop 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 this function and you have activated the call waiting feature.
▶ p. 83

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

Using In-call options

Press <**Options**> to access the following options during a call:

- **Loudspeaker**/**Loudspeaker off**: turn on the Speakerphone feature or switch back to Normal mode.
- **Switch to headset**/**Switch to phone**: switch the call to a Bluetooth headset or hands-free car kit or back to the phone. To use this feature, you first need to connect your headset or car kit to the phone. ▶ p. 66
- **Join**: set up a multi-party call by adding a caller on hold to a currently active call. You can include up to 5 people on a multi-party call.
- **Split**: have a private conversation with one multi-party call participant. The other participants can converse with each other. After the private conversation, select **Join** to return both private participants to the multi-party call.
- **Drop**: access the following options:

  Drop active call: disconnect the active call.

  Drop held call: disconnect the call currently on hold.
- **Drop call**: disconnect one of the multi-party call participants.
- **Transfer**: transfer the currently active call to a caller on hold. The two callers can talk to each other, but you are disconnected from the call.
- **Mute**/**Unmute**: switch off the phone's microphone so that the other person on the phone cannot hear you, or switch it back on.
- **Mute key tone**/**Unmute key tone**: turn the key tones off or on.

  ☑ To communicate with answering machines or computerised telephone systems, **Unmute key tone** must be selected.
- **New call**: make a new voice call.
- **Contacts**: access the contact list to locate or store contact information.
- **Send SMS**: send an SMS message to the person with whom you are talking.
- **Send DTMF**: send DTMF (Dual tone multi-frequency) tones as a group. The DTMF tones are the tones used in phones for tone dialling, sounding when you press the number keys. This option is helpful for entering a password or an account number when you call an automated system, like a banking service.
- **Memo**: create a memo.
- **End call**/**End calls**: disconnect the call currently on hold, active call, or all calls.

Using the video call feature

In a 3G (UMTS) service area, your phone can make or receive a video call, allowing you to see another person on the screen during a conversation. The other person's phone must support the video call feature.

Making a video call

1. In Idle mode, enter the area code and phone number.
2. Press [ ] and if their phone is compatible, the other person appears on the screen.

Answering a video call

When you receive a video call, answer as you would when as receiving a voice call. Press <**Show me**> to allow the caller to see you.

Using video call options

During a video call, press <**Options**> to access the following options:

- **Loudspeaker**/**Loudspeaker off**: turn on the Speakerphone feature or switch back to Normal mode.
- **Switch to headset**/**Switch to phone**: switch the call to a Bluetooth headset or hands-free car kit or back to the phone. To use this feature, you first need to connect your headset or car kit to the phone. ▶ p. 66
- **Mute camera**/**Unmute camera**: turn the camera off or on.
- **Mute voice**/**Unmute voice**: turn the microphone off or on.
- **Mute camera & voice off**/**Unmute all**: turn the camera and the microphone off or on.
- **Mute key tone**/**Unmute key tone**: turn the key tones off or on.
- **Record Video call**: record your video call conversation. You can access the recorded conversations in the **Videos** folder.
- **Zoom**: display the zoom control bar and zoom in or out by pressing [Up] or [Down].
- **Brightness**: display the brightness control bar and adjust the brightness by pressing [Left] or [Right].
- **Effects**: change the colour tone of the image.
- **Hide information**/**Show information**: hide or display information about the video call.
- **Send DTMF**: send DTMF (Dual tone multi-frequency) tones as a group after entering the entire number you need to send or retrieving a number from Contacts.
- **Video quality**: change the image quality of the camera.
- **End call**: end the video call.

Menu functions

All menu options listed

Call log *(Menu 1)*

Use this menu to view the calls you have dialled, received, or missed, the length of the calls. You can also check the cost of your calls, if your USIM/SIM card supports this function.

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

Missed calls *(Menu 1.1)*

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

Accessing a call log

1. Scroll to the name or number you want.
2. Press [↶] to dial the number, or [OK/*i*] to view the details of a call.

Using call log options

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

- **Voice call**: make a voice call to the number.
- **Video call**: make a video call to the number, if the 3G service is available.
- **Copy to dialling screen**: paste the selected number to the normal dialling screen.
- **Save to Contacts**: save the number to Contacts.
- **Send message**: send a message to the selected number via SMS or MMS.
- **Delete**: delete the call log or all logs.

Viewing the data counter

From the call log list, press <**Options**> and select **Call manager** → **Data counter** to view the total amount of sent or received data.

The following counter is available:

- **Total sent**: check the total amount of data you have sent.
- **Total received**: check the total amount of data you have received.

To reset a counter or all of the counters, press <**Options**> and select **Reset** or **Reset all**.

☑ If the phone is locked, it will require the password. The password is preset to **00000000**. You can change this password. ▶ p. 86

Viewing call cost

From the call log list, press <**Options**> and select **Call manager** → **Call costs** to the cost of calls. This option is available only if supported by your SIM card. Note that this is not intended to be used for billing purposes.

The following counter is available:

- **Total costs**: check the total cost of all your calls. If the total cost exceeds the maximum cost set in **Edit cost limit**, you must reset the counter before you can make another call.
- **Last call cost**: check the cost of your last call.
- **Call limit**: check the maximum cost set.

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

- **Reset call cost**: reset the cost counters.
- **Edit cost limit**: set the maximum cost authorised for your calls.
- **Setup currency**: set the currency that is applied when the cost of your call is calculated.

Viewing call times

From the call log list, press <**Options**> and select **Call manager** → **Call times** to view the time log for calls made and received. The actual time invoiced by your service provider will vary.

The following counter is available:

- **Total dialled**: check the total length of voice calls dialled.
- **Total received**: check the total length of voice calls received.
- **Total video calls dialled**: check the total length of video calls dialled.
- **Total video calls received**: check the total length of video calls received.

To reset a counter or all of the counters, press <**Options**> and select **Reset** or **Reset all**.

> ☑ If the phone is locked, it will require the password. The password is preset to **00000000**. You can change this password. ▶ p. 86

Dialled calls *(Menu 1.2)*

This menu displays the most recent calls you have dialled.

Received calls *(Menu 1.3)*

This menu displays the most recent calls you have received.

Recent contacts *(Menu 1.4)*

This menu displays all of the calls you have dialled, received, or missed.

Contacts *(Menu 2)*

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

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

Search contact *(Menu 2.1)*

Use this menu to search for contacts in Contacts.

> ☑ You can quickly access this menu by pressing <**Contacts**> in Idle mode.

Finding a contact

1. Enter the first few letters of the name that you want to find.
2. Select the contact you want from the list.
3. Scroll to a number and press [ ] to dial, or press [OK/i] to edit contact information.

Using contact options

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

- **Edit**: edit contact information.
- **Send message**: send an SMS or MMS message to the selected number, or send an MMS message or e-mail to the selected e-mail address.
- **Special options**: set the following options:

  Picture: assign a caller ID image to alert you to a call from the number.

  Ringtone: assign a ringtone to alert you to a call from the number.

  Msg. alert tone: select a ringtone to alert you to an incoming message from the number.
- **Add to speed dial**: set the selected number as a speed dial entry.
- **Video call**: make a video call, if the 3G service is available.
- **Copy to SIM**/**Copy to phone**: copy the contact from the phone's memory to the SIM card, or vice versa.
- **Send name card**: send the contact via SMS, e-mail, or Bluetooth.
- **Print via Bluetooth**: print contact information via a Bluetooth compatible printer. Some printers may not be compatible with the phone.
- **Delete**: delete the contact.

While viewing the contact list, press <**Options**> to access the following options:

- **Details**: access information about the selected contact.
- **Edit**: edit contact information.
- **Video call**: make a video call, if the 3G service is available.
- **New**: add a new contact.

- **Delete**: delete the contact.
- **Search groups**: access the caller group list.
- **Delete all**: delete all of the contacts from your phone's memory, your SIM card, or both.

New contact *(Menu 2.2)*

Use this menu to add a new contact to Contacts.

Storing a contact to the phone's memory

1. Select **Phone**.
2. Change the settings or enter information about the contact:
   - **First name**/**Last name**: assign a name.
   - **Phone number**: add a phone number.
   - **Work Email**: assign a business e-mail address.
   - **Home Email**: assign a personal e-mail address.
   - **Group**: assign a caller group.
   - **Homepage**: enter a homepage address.
   - **Birthday**: enter the person's birthday.
   - **Work address**: enter a business postal address.
   - **Home address**: enter a personal postal address.
   - **More information**: enter the job title, department, company, nickname, and additional note of the person.
3. Press <**Options**> and access the following options to add additional information:
   - **Special options**: assign a caller ID image, call ringtone, or message ringtone for the contact.
   - **Add phone number**: add a number type to the contact.
   - **Delete phone number**: remove the selected number type from the contact entry.
   - **Change type**: change the number type to a different one.
   - **Mark video call**/**Unmark video call**: set the selected number as a video call number, or not.
4. Press <**Option**> and select **Save** to save the contact.

Storing a contact to the USIM/SIM card

1. Select **SIM**.
2. Enter information about the contact:
   - **Name**: assign a name.
   - **Phone number**: enter a phone number.
   - **Group**: (For USIM) assign a caller group.
   - **Location number**: assign a location number.
3. If you are using a USIM card, press <**Options**> to add additional information:
   - **Add item**: add a number type to the contact.
   - **Delete item**: remove the selected number type from the contact.
4. Press <**Save**> to save the contact.

Groups *(Menu 2.3)*

Use this menu to organise your contacts in caller groups.

Creating a caller group

1. Press <**Options**> and select **Add group**.
2. Enter a name for the group.
3. Press <**Save**> to save the group.

Adding members to a caller group

1. Select a group.
2. Press [OK/*i*] to check the contacts you want.
3. Press <**Save**>.

Managing caller groups

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

- **View members**: display the members of the selected group.
- **Add member**: add contacts to the selected group, if the group does not have any.
- **Add group**: add a new group.
- **Rename group**: change the group name.
- **Delete group**: delete the selected group. Group members, however, will not be deleted from Contacts.
- **Delete all groups**: delete all groups including default groups.

Speed dial *(Menu 2.4)*

Use this menu to assign speed dial numbers (3 to 9) to 7 of your most frequently dialled numbers.

Assigning speed dial entries

1. Select a key location from **3** to **9**. Key **1** is reserved for your voicemail server, and key **2** for your videomail server.
2. Select the contact you want from the contact list.
3. Select a number.

Managing speed dial entries

From the Speed dial screen, press <**Options**> to access the following options:

- **Add**: assign a number to an unassigned key.
- **Details**: check the name and number assigned to a key.
- **Video call**: make a video call, if the 3G service is available.
- **Change**: assign a different number to a key.
- **Remove**: clear the speed dial setting for a key.

Dialling speed dial numbers

In Idle mode, press and hold the appropriate key.

My namecard *(Menu 2.5)*

Use this menu to create your name card and send it to other people.

Saving your name card

The procedure for creating your name card is the same as the one for saving a number in the phone's memory. ▶ p. 35

Using name card options

After saving your name card, press <**Options**> to access the following options:

- **Edit**: edit the name card.
- **Send name card**: send the name card via SMS, e-mail, or Bluetooth.
- **Print via Bluetooth**: print your contact informations via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.
- **Delete**: delete the name card.

Copy all *(Menu 2.6)*

Use this menu to copy all of the contacts stored on the USIM/SIM card to the phone's memory, or vice versa.

Own number *(Menu 2.7)*

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 USIM/SIM card.

Service number *(Menu 2.8)*

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

1. Scroll to the number you want.
2. Press <**Call**> or [ ].

Settings *(Menu 2.9)*

Use this menu to change the default settings for Contacts entries.

- **Viewing settings**: change the sort order of the contact list.
- **Default storage settings**: select a default memory location for saving contacts. If you select **Optionally**, the phone will ask you to select a memory location each time you save a number.

Memory status *(Menu 2.0)*

Use this menu to check the number of contacts you have stored in the phone's memory and on the USIM/SIM card.

i.TIM *(Menu 3)*

Use this menu to access DVB-H services and play music or video files.

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

Mobile TVi *(Menu 3.1)*

Mobile TVi is a mobile TV service via DVB-H (Digital Video Broadcasting Handheld), allowing you to view all the TV programmes as they are broadcast. You can watch TV shows, sports news, and new music and video channels or listen to the radio. For further details about the Mobile TVi service, contact DVB-H broadcasting service provider.

You can enjoy optimal broadcast services while in the area of a DMB transceiver.

Watching TV

1. In Idle mode, rotate the phone's display.

   You can get a better view of TV by adjusting the display.

2. Press and hold [**TV**]. The list of the available TV programmes displays.

   You can update the channel list by pressing <**Options**> and selecting **Update** on the Mobile TVi screen.

3. Scroll to the programme you want.
4. Press <**Options**> and select **Play via**.

   Select **Phone** to use the phone speaker.

   Select **A/V headset** to use a Bluetooth stereo headset, and then search for and connect the phone to the headset.

Using the keys while watching TV

You can use the following keys to control the TV.

Keys	Function
OK/*i*	Accesses the details of the current programme.

Keys	Function
Left	Returns to the previous channel.
Right	Skips to the next channel.
Up	Accesses the current programme list.
Down	Goes to the detailed broadcast information on TVi guide.
1~**0**	Allows you to enter a channel number.
✳/#	Adjusts the brightness.
▲/▼	Adjusts the volume. Mutes the audio when held down.

Using TV options

While watching TV, you can access the following options by pressing <**Options**>:

- **View programme details**: access the current programme details.
- **Transfer to AV headset**/**Transfer to phone**: switch the sound output to a Bluetooth stereo headset or the phone.
- **Buy programme**: purchase the programme.
- **Hide graphic guide**/**Show graphic guide**: hide or display the graphic guide, which includes secondary status indicators, soft key indicators, and controller image on the display.
- **Go to TVi guide**: access the detailed broadcast information on TVi guide.
- **Add to favourite**/**Remove from favourite**: add the current programme to the Favourite channel list, or remove the programme from the list.
- **My subscription**: view your subscription information for the current programme.
- **Settings**: customise the settings for watching TV.

  Graphic guide: set whether or not to display the graphic guide, which includes secondary status indicators, soft key indicators, and controller image on the display while watching TV.

  - **Always show**: the display always shows the graphic guide.
  - **Show whenever key pressed**: the display shows the graphic guide about 5 seconds after a key is pressed.
  - **Always hide**: the display does not show the graphic guide.

  Brightness: adjust the image brightness.

  Volume: select the volume level.

  Favourite channels: access your favourite channel list.

  Purchase Test: download a preview of the programme.

Listening to the radio with the phone closed

You can continue to listen to the radio even if you close the phone.

Use the following keys to listen to the radio:

Key	Function
⏮	Returns to the previous channel.
⏭	Skips to the next channel.
▲/▼	Adjusts the volume.
📷	Locks the exposed keys when held down to keep accidental presses from affecting playback.
►II	Turns off the radio.

i.Music Store *(Menu 3.2)*

Use this menu to launch the built-in application to access a variety of music files and purchase them. For further details, contact your service provider.

From the i.Music Store screen, press <**Options**> to access the following options:

- **Enter**: access the homepage of i.Music Store.
- **Go to playlist**: open the play list.
- **Go to all music**: access all music files stored in the phone's memory.
- **Exit**: exit the i.Music Store menu and return to the previous menu level.

Media player *(Menu 3.3)*

You can enjoy music and video files from the phone's memory. First, you need to save files to your phone's memory or on a memory card.

Downloading or receiving music or video files

You can play the following types of files on your phone:

- Music: MP3, AAC, 3GA, M4A, WMA, RA
- Video: 3GP, MP4, WMA, ASF, RM, RAM

Use the following methods to save music or video files to your phone's memory:

- Download from the wireless web ▶ p. 42
- Download from a computer using Samsung PC Studio ▶ Samsung PC Studio User's Guide
- Receive via an active Bluetooth connection ▶ p. 66
- Copy to a memory card and insert the card into the phone ▶ p. 24

Downloaded or received files are stored in the **Downloads** folder in **Videos** or **Music**.

Creating the play list

1. From the Media player screen, press [OK/*i*].
2. Press <**Options**> and select **Add**.
3. Select **Folder** or **Files**.
4. Scroll to a folder by pressing [Left] or [Right].

5. For **Files**, press [OK/*i*] to select the files you want.
6. Press <**Add**> or <**Select**>.

Playing media files

From the play list, press [OK/*i*]. Playback begins from the selected file.

During playback, use the following keys:

Keys	Function
OK/*i*	Pauses or resumes playback.
Left	Return to the previous file. Moves backward in a file when held down.
Right	Skips to the next file. Skips forward in a file when held down.
Up	Opens the play list.
▲/▼	Adjusts the volume.
Down	Stops playback.

Using media player options

While playing a file, press <**Options**> to access the following options:

- **Pause**/**Resume**: pause or resume playback.
- **Stop**: stop playback.
- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Open play list**: access the play list.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Go to File Manager**: access video or music folders in **File Manager**.
- **Details**: access the file properties.
- **Player settings**: change the default settings for playing media files:

  Play options: select a play mode (Normal: , Shuffle: , Repeat one: , Repeat All:).

  Volume: select a volume level.

  Controller: display or hide the controller image.

  Audio player skin: select a skin image.

  Equaliser type: select an equaliser setting. If you select **Custom EQ**, you can manually customise the equaliser by pressing the Navigation keys.
- **VOD settings**: select a connection profile to be used for accessing a video streaming server. You can also create or edit a profile. ▶ p. 84
- **Key management**: manage licence keys you have acquired.

Using play list options

From the media player screen, press [Up] to access the play list and press <**Options**> to access the following options:

- **Play**: play the currently selected file.
- **Add**: add files or a folder to the play list.
- **Remove**: remove the selected file or all files from the current play list.
- **Move**: move the selected file to the position you want within the current play list or another play list.
- **Copy**: make a copy of the selected file in the current play list or another play list.
- **New list**: add a new play list.

Playing music files with the phone closed

Press and hold [►II] to launch the media player and start playback. Use the following keys to control the media player:

Key	Function
►II	Pauses or resumes playback. Closes the media player when held down.
I◄◄	Returns to the previous file. Moves backward in a file when held down.
►►I	Skips to the next file. Skips forward in a file when held down.
▲/▼	Adjusts the volume.
📷	Locks the exposed keys when held down to keep accidental presses from affecting playback.

Internet *(Menu 4)*

The web browser on your phone allows you to access the wireless web. From the wireless web, you can access up-to-date information and a wide variety of media content, such as games, wallpapers, ringtones, and music files.

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

Go to homepage *(Menu 4.1)*

You can launch the web browser and access the homepage of the web service provided by your service provider.

Navigating the web browser

To	Press
scroll through browser items	[Up] or [Down].
select a browser item	[OK/*i*] or <**Options**> and select **Go to**.
return to the previous page	<**Back**>, or <**Options**> and select **Go** → **Backward**.
move to the next page	<**Options**> and select **Go** → **Forward**.

Using browser options

From any web page, press <**Options**> to access the following browser options:

- **Go to**: access the linked web page.
- **Go**: move backward or forward through page in history.
- **Reload**: reload the current page with updated information.
- **Desktop view**/**Smart-fit view**: change the display mode of the browser.
- **Page size**: change to the large, normal, or small page size.
- **Go to homepage**: go back to the homepage.
- **Add to Bookmarks**: add the current page to your bookmark list.
- **View Bookmarks**: access the bookmark list.
- **Enter URL**: manually enter the URL address of the web page you want to access.
- **Copy URL**: send the URL address of the current page via SMS, MMS, or e-mail.
- **Save**: save the image of the current web page or the current page.
- **Saved pages**: access the web pages you have saved.
- **History**: access the list of the web pages you have accessed.
- **Advanced**: charge various settings for the browser:

  Clear cache: clear the cache. The cache is a temporary memory site that stores recently accessed web pages.

  Empty cookies: delete cookies. Cookies are pieces of personal information sent to a web server while navigating the web.

  Cookie options: set whether or not cookies are stored. If you select **Prompt**, the phone will ask you to save the cookies of the current page.

Preferences: change the browser display and sound settings.

Certificates: access the web browser certificates.

Page details: access the page properties.

Browser settings: select a connection profile to be used for connecting to the Internet. You can also create or edit a profile. ▶ p. 84

About browser: access version and copyright information about the browser.

Exiting the web browser

Press [ ] to end the network connection and close the browser.

Enter URL *(Menu 4.2)*

Use this menu to manually enter a URL address and access the associated web page.

You can add the entered URL address to the bookmark list by selecting **Add bookmark**.

Favourites *(Menu 4.3)*

Use this menu to save URL addresses in order to quickly access web pages, or access the preset bookmarks.

Adding a bookmark

1. Press <**Options**> and select **Add bookmark**.
2. Enter a title for the bookmark and press [Down].
3. Enter a URL address and press <**Save**>.

Assessing a bookmarked page

Selecting a bookmark item launches the web browser and accesses the associated web page.

Using bookmark options

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

- **Go to**: access the bookmarked web page.
- **Enter URL**: enter a URL address manually.
- **Edit bookmark**: edit the URL address and title of the bookmark.
- **Add bookmark**: add a new bookmark.
- **Copy URL**: send the URL address of the bookmark via SMS, MMS, or e-mail.
- **Delete**: delete the selected bookmark or all bookmarks.

History *(Menu 4.4)*

You can access the list of pages you have accessed recently.

Select a URL address from the list to access the corresponding web page.

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

- **Go to**: access the selected web page.
- **Delete**: delete the selected web page or all pages.

- **Page details**: access the page properties of the selected web page.

Browser settings *(Menu 4.5)*

Use this menu to select a connection profile to be used for connecting to the Internet. You can also create or edit a profile. ▶ p. 84

Network settings *(Menu 4.6)*

Use this menu to clear the cache or delete cookies or to change the browser display settings.

- **Clear cache**: clear the cache. The cache is a temporary memory site that stores recently accessed web pages.
- **Empty cookies**: delete cookies. Cookies are pieces of personal information sent to a web server while navigating the web.
- **Cookie options**: change the cookie acceptance mode.
- **Preferences**: change the browser display and sound settings.
- **About browser**: access version and copyright information about the browser.

Messages *(Menu 5)*

Use the **Messages** menu to send and receive text messages, multimedia messages, and e-mails. you can also access push messages, voicemails, broadcast messages, and configuration messages.

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

Create new *(Menu 5.1)*

Use this menu to create and send text messages, multimedia messages, or e-mails.

SMS *(Menu 5.1.1)*

Short Message Service (SMS) allows you to send or receive text messages.

Creating and sending an SMS message

1. Enter your message and press [OK/*i*].

   - The maximum number of characters allowed in a message varies by service provider. If your message exceeds the maximum number of characters, the phone will split the message.
   - You can use various by pressing <**Options**>. ▶ next section

2. Enter a destination number.

   To send the message to more than one recipient, fill in additional destination fields.

3. Press [OK/*i*] to send the message.

Using options while composing an SMS message

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

- **Send**: send the message.
- **Input method**: change the text input mode.
- **Input language**: change the language to be used in T9 input mode.
- **Insert**: insert a text template, Contacts entry, or bookmarked URL address into text.
- **Save to Drafts**: save the message in the **Drafts** folder.

MMS *(Menu 5.1.2)*

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

Creating and sending an MMS message

1. Enter the message subject.

   ☑ You can use various options by pressing <**Options**> in each field. ▶ next section

2. Select the **Text** line.
3. Enter the message text and press [OK/*i*].
4. Select the **Picture or Video** line and add an image or video clip.

   ☑
   - The maximum size allowed for a message can differ, depending on your service provider.
   - Depending on the file type or DRM (Digital Rights Management) system, some files may not be able to be forwarded.

5. Select the **Audio** line and add a sound clip.
6. When you have finished, press [OK/*i*].
7. Enter a phone number or e-mail address.

   To send the message to more than one recipient, fill in additional destination fields.

8. Press [OK/*i*] to send the message.

Using options while composing an MMS message

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

- **Send**: send the message.
- **Input**: enter the message text.
- **Add**: add an image, video, or sound clip.
- **Preview**: view the message as it will be shown on the recipient's phone.
- **Input method**: change the text input mode.
- **Input language**: change the language to be used in T9 input mode.

- **Insert text template**: insert a text template into the message subject or text.
- **Save to Drafts**: save the message in the **Drafts** folder.
- **Add page**: add pages. Move to each page by pressing [Left] or [Right].
- **Move page**: move the current page to the next or previous page.
- **Delete page**: delete the added page.
- **Edit style**: change the page properties.

  This page: set the page duration and change font colour and style for the selected page.

  All page: change the background colour and page layout.
- **Edit Text/Change file**: edit the added text, image, or sound clip.
- **Delete text/Delete file**: delete the added text, image, or sound clip.
- **Save as template**: save the message as a template in the **Multimedia templates** folder.

TIMClick *(Menu 5.1.3)*

Using this menu, you can create and send a photo postcard or send a photo to a printing service shop.

> ☑ You can use photos of VGA (640 x 480) or larger size for this service.

Creating and sending a postcard

1. Select **Postcard**.

   > ☑ You can use various options by pressing <**Options**> in each field. ▶ next section

2. Select **Greeting msg.**
3. Enter the message text and press [OK/*i*].
4. Select **Picture**.
5. Select the photo you want to send and press <**Add**>.
6. Press [OK/*i*] and specify the recipient's postal address: Name, Additional information, Street, ZIP, City, and Country.
7. Press [OK/*i*] to send the postcard.

Using options while composing a photo postcard

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

- **Send**: send the message.
- **Preview**: view the message as it will be shown on the recipient's phone.
- **Preview**: view the message as it will be shown on the recipient's phone.
- **Input**: enter the message text.
- **Insert text template**: insert a text template into the message text.

- **Edit Text**/**Change picture**: change the added item.
- **Remove text**/**Remove picture**: remove the added item.
- **Save to Drafts**: save the message in the **Drafts** box.

Sending a photo to a printing service shop

1. Select **Print**.
2. Select **Picture**.
3. Select the photo you want to print and press <**Add**>.
4. Press <**Options**> to access the following options:
   - **Send**: send the message.
   - **Preview**: view the message as it will be shown on the recipient's phone.
   - **Change picture**: change the added photo.
   - **Remove picture**: delete the added photo.
   - **Save to Drafts**: save the message in the **Drafts** box.
5. When you have finished, press [OK/*i*].
6. Enter the shop's postal code.
7. Press [OK/*i*] to send the photo.

Email *(Menu 5.1.3)*

You can send and receive e-mails that include text, audio, and images. To use this feature, you need to subscribe to an e-mail service and set up your e-mail account. ▶ p. 58

Creating and sending an e-mail

1. Enter the e-mail subject.

   ☑ You can use various options by pressing <**Options**> in each field. ▶ next section

2. Move to the **Message** field.
3. Enter the message text.
4. Select the **Attach files** line.
5. Scroll to a media file folder and press [OK/*i*] to select files.
6. Press <**Options**> and select **Attach**.
7. When you have finished, press [OK/*i*].
8. Enter an e-mail address.

   To send the e-mail to more than one recipient, fill in additional destination fields.
9. Press [OK/*i*] to send the e-mail.

Using options while composing an e-mail

While composing an e-mail, press <**Options**> to access the following options in each field:

- **Send**: send the message.
- **Input method**: change the text input mode.

- **Input language**: change the language to be used in T9 input mode.
- **Insert text template**: insert a text template into the e-mail subject or text.
- **Insert**: insert a text template, Contacts entry, calendar item, or bookmarked URL address into text.
- **Attached file list**: access the list of the files you attached.
- **Add files**: add images, videos, or sounds.
- **Add name card**: attach a Contacts entry as a name card.
- **Add v-calendar**: attach calendar data as a data format attachment.
- **Delete all attachments**: delete all attachments.
- **Save to Drafts**: save the e-mail in the **Drafts** folder.

File messenger *(Menu 5.1.5)*

Use this menu to send multiple media files by attaching them to an MMS message.

1. Enter the message subject.

   ☑ You can use various options by pressing <**Options**> in each field. ▶ next section

2. Move to the **Message** field.
3. Enter the message text.
4. Select the **Attach files** line.
5. Scroll to a media file folder and press [OK/*i*] to select files.
6. Press <**Options**> and select **Attach**.
7. When you have finished, press [OK/*i*].
8. Enter a phone number or e-mail address.

   To send the message to more than one recipient, fill in additional destination fields.

9. Press [OK/*i*] to send the message.

Using options while composing an MMS message

While composing a message, press <**Options**> to access the following options in each field:

- **Send**: send the message.
- **Input method**: change the text input mode.
- **Input language**: change the language to be used in T9 input mode.
- **Insert text template**: insert a text template into the message subject or text.
- **Insert**: insert a text template, Contacts entry, or bookmarked URL address into text.
- **Attached file list**: access the list of the files you attached.
- **Add files**: add images, videos, or sounds.
- **Add name card**: attach a Contacts entry as a name card.

- **Add v-calendar**: attach calendar data as a data format attachment.
- **Delete all attachments**: delete all attachments.
- **Save to Drafts**: save the message in the **Drafts** folder.

Inbox *(Menu 5.2)*

This folder stores all types of messages you have received, except for e-mails.

Viewing a message

The following icons may appear on the message list to show the message type:

- SMS
- MMS
- MMS notification
- Push message from web servers.
- Configuration message, containing network parameters from your service provider.

- Depending on the file type or DRM (Digital Rights Management) system, some files may not be able to be forwarded.
- A **!** icon next to a message means that the message is of high priority. A grey-coloured message icon indicates low priority.

Using message options

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

SMS messages

- **Call**/**Go to URL**: dial the highlighted phone number or access the highlighted web link.
- **Add to bookmarks**: save the highlighted web link to the bookmark list.
- **Create email**: send an e-mail to the highlighted e-mail address.
- **Reply**: reply to the sender via SMS or MMS.
- **Forward**: forward the message to other people.
- **Call back**: dial the phone number of the sender.
- **Save to Contacts**: save the sender's phone number, or the selected number, e-mail address, or URL address to Contacts.
- **Move to SIM**/**Move to phone**: move the message between the phone's memory and the USIM/SIM card.
- **Print via Bluetooth**: print the message via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.
- **Delete**: delete the message.

MMS messages

- **Play**: play the message.
- **Open file**: open the selected file.

- **Call**/**Go to URL**/**Go to RTSP**: dial the highlighted phone number or access the highlighted web link.
- **Add to bookmarks**: save the highlighted web link to the bookmark list.
- **Create email**: send an e-mail to the highlighted e-mail address.
- **Create multimedia msg.**: send an MMS message to the highlighted e-mail address.
- **Reply**: reply to the sender via SMS or MMS.
- **Reply to all**: send a reply to the sender and all recipients.
- **Forward**: forward the message to other people.
- **Call back**: dial the phone number of the sender.
- **Save as template**: save the message as a template in the **Multimedia templates** folder.
- **Save files**: save media items from the message into your phone's memory.
- **Save to Contacts**: save the sender's phone number, or the selected number, e-mail address, or URL address to Contacts.
- **Delete**: delete the message.
- **Details**: access the message properties.

Push messages

- **Go to URL**: connect to the URL address specified in the message.
- **Delete**: delete the message.

Configuration messages

- **Install**: apply the configuration specified in the message to your phone.
- **Delete**: delete the message.
- **Sort by**: change the sort order of the message list.
- **Delete**: delete the selected message.
- **Delete all**: delete all messages.

Drafts *(Menu 5.3)*

This folder stores messages you have saved to send them at a later time.

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

- **View**: open the selected MMS message.
- **Edit**: edit the selected message.
- **Send**: send the selected message.
- **Sort by**: change the sort order of the message list.
- **Delete**: delete the selected message.
- **Delete all**: delete all messages.

Outbox *(Menu 5.4)*

This folder stores messages the phone is attempting to send or has failed to send.

The following icons may appear on the message list to show the message status:

- Being sent
- Failed to be sent

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

- **View**: open the selected MMS message.
- **Send again**: resend the message.
- **Edit**: edit the selected message.
- **Cancel sending**: cancel sending the message.
- **Sort by**: change the sort order of the message list.
- **Delete**: delete the selected message.
- **Delete all**: delete all messages.
- **Details**: access the message properties.

Sent box *(Menu 5.5)*

This folder stores messages that you have sent.

While viewing a message. Press <**Options**> to access the following options:

- **Play**: replay the MMS message.
- **Open file**: open the selected file.
- **Forward**: forward the message to other people.
- **Move to phone**/**Move to SIM**: move the message between the phone's and SIM card.
- **Print via Bluetooth**: print the message via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.
- **Delete**: delete the selected message.
- **Details**: access the message properties.

Email inbox *(Menu 5.6)*

This folder stores e-mails that you have received.

Viewing received e-mails

1. Press <**Options**> and select **Download**.

   The phone checks the e-mail server and downloads new e-mails. The following icons tell you the status of each e-mail:

   - : Retrieved e-mail
   - : Retrieved e-mail with attachments
   - : E-mail not retrieved

   - Depending on the file type or DRM (Digital Rights Management) system, some files may not be able to be forwarded.
   - A **!** icon next to a message means that the message is of high priority. A grey-coloured message icon indicates low priority.

2. Select an e-mail or header.

3. If the e-mail has more than one page, press [▲/▼] to scroll through pages one by one.
4. Select an attached file to view or play it.

Using e-mail options

While viewing an e-mail or header, press <**Options**> to access the following options:

- **Retrieve**: retrieve the body of the selected e-mail header from the e-mail server.
- **Reply**: send a reply to the sender.
- **Reply to all**: send a reply to the sender and all recipients.
- **Forward**: forward the e-mail to other people.
- **Save files**: save the selected file.
- **Save to Contacts**: save the sender's e-mail address, or the selected number, e-mail address, or URL address to Contacts.
- **Block**: add the sender's e-mail address or subject to the Block list to reject e-mails from that address or containing that subject.
- **Delete from phone**: delete the selected e-mail or all e-mails from the phone.
- **Delete permanently**: delete the selected e-mail or all e-mails from both the phone and the e-mail server.
- **Details**: access the e-mail properties.

Templates *(Menu 5.7)*

Use this menu to make and use templates of frequently used messages or passages.

Text templates *(Menu 5.7.1)*

You can create SMS templates with the sentences you use frequently so that you can retrieve and insert them when composing an SMS message.

Creating a template

1. Press <**New**>, or press <**Options**> and select **New**, if one has been already stored.
2. Enter a message and press [OK/*i*].

Using template options

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

- **Send**: create and send a new message using the selected template.
- **New**: add a new template.
- **Edit**: change the selected template.
- **Delete**: delete the template.
- **Delete all**: delete all templates.

Multimedia templates *(Menu 5.7.2)*

You can create MMS templates so that you can use them in composing an MMS message.

Creating a template

1. Press <**New**>, or press <**Options**> and select **New**, if one has been already stored.
2. Create a template as you would when creating an MMS message.
3. Press <**Options**> and select **Save as template** to save the template.

Using template options

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

- **View**: open the selected template.
- **Send**: create and send an MMS message using the selected template.
- **New**: add a new template.
- **Edit**: change the selected template.
- **Delete**: delete the template.
- **Delete all**: delete all templates.

Broadcast *(Menu 5.8)*

Your phone receives cell broadcast messages, which are text messages related to various topics, such as weather forecast, traffic, and news report, from networks. Use this menu to access received broadcast messages.

Viewing a broadcast message

All broadcast messages are stored in the **Temporary** folder and will be deleted after a period of time. If you do not want a message to be deleted, save it to the **Archive** folder. While viewing the message, press <**Options**> and select **Save**.

Using message options

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

- **Call**/**Go to URL**: dial the highlighted phone number or access the highlighted web link.
- **Create email**: send an e-mail to the highlighted e-mail address.
- **Save**: save the message in the **Archive** folder.
- **Delete**: delete the message.

Delete all *(Menu 5.9)*

Use this menu to delete all of the messages in each message folder at once.

1. Press [OK/*i*] to select the message folders you want.
2. Press <**Delete**>.
3. Press <**Yes**> to confirm the deleting.
4. Press <**OK**>.

Settings *(Menu 5.0)*

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

SMS *(Menu 5.0.1)*

You can configure default SMS settings.

- **Settings x**: set the properties of each profile:

  Centre address: store or change the number of your SMS server.

  Expiration: set the length of time your messages are stored in the SMS server.

  Default type: set the default message type. The network can convert messages into the selected format.

  Name: enter a profile name.
- **Sending settings**: set up the options for sending SMS messages:

  Reply path: allow recipients to reply to you through your SMS server.

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

  Network selection: select **CS preferred** (GSM) or **PS preferred** (GPRS), depending on your network.

  Keep a copy: leave the copies of your messages in the **Sent box** folder after sending.

  Character support: select a character encoding type. When you select **Automatic**, the phone switches the encoding type from GSM alphabet to Unicode if you enter a unicode character. Use of Unicode encoding will reduce the maximum number of characters in a message to about half. If this menu is not shown, your phone provides the automatic character encoding by default.

MMS *(Menu 5.0.2)*

You can configure default MMS settings.

- **Sending options**: set up the options for sending MMS messages:

  Priority: set the priority level of your messages.

  Expiration: set the length of time your messages are stored in the MMS server.

  Custom time(Hour): enter the length of time you want if you select **Custom time** in the **Expiration** option.

  Delivery: set a time delay before messages are sent.

  Custom time(Hour): enter the length of time you want if you select **Custom time** in the **Delivery** option.

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

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

Request read report: send a read-reply request along with your messages.

Keep a copy: leave the copies of your messages in the **Sent box** folder after sending.

Add my name card: allow your contact information to be attached to e-mails.

Add signature: attach your signature to e-mails.

- **Receiving options**: set up the options for receiving MMS messages:

  Home network: determine if your phone retrieves new messages automatically when you are in your home service area.

  Roaming network: determine if your phone retrieves new messages automatically when you are roaming in another network.

  Reception within your home network or while roaming has the following options:

  - **Auto download**: the phone automatically retrieves messages from the server.
  - **Manual**: the phone receives notifications first from the server. Use the **Retrieve** option to manually download new messages.
  - **Restricted**: the phone receives notifications first from the server. When you attempt to download new messages, the phone informs you of additional charges.
  - **Reject**: the phone rejects all messages.

  Send delivery report: set the network to inform the sender when a message has been delivered to you.

  Send read report: determine whether or not the phone sends a read-reply when an incoming message has been read.

  Reject anonymous: reject messages from unknown senders.

  Reject advertisement: reject advertisements.

- **MMS profiles**: select a connection profile to be used for MMS. You can also create or edit a profile. ▶ p. 84
- **Message size**: select the maximum file size of MMS attachments. This file size may vary, depending on your country.
- **Creation mode**: select an MMS creation mode:

  Warning: you can create a message with any type of content and of any size, but the phone will inform you when the content and size have exceeded the maximum.

  Free mode: you can create a message with any type of content and of any size.

  Restrict: you can create a message with the specified type of content and the size specified by default.

- **Slide interval**: select the length of time the display shows each page in a message. If you select **Custom time**, enter the length of time you want in the **Custom time (sec)** option.

Email *(Menu 5.0.3)*

You can configure e-mail settings.

> ☑ You cannot change e-mail profile settings while an e-mail is being sent or retrieved.

- **Sending options**: set up the options for sending e-mails:

  From: set the sender name.

  Sending account: select the default e-mail account.

  Priority: select the priority level of e-mails.

  Keep a copy: leave the copies of your e-mails in the **Sent box** folder after sending.

  Include body when replying: set whether or not the phone includes the original e-mail text in a reply.

  Read report: send a read-reply request along with your e-mails.

  Delivery report: set the network to inform you when your e-mail have been delivered.

  Send options: set emails to be sent immediately or later.

  Add my name card: allow your contact information to be attached to e-mails.

  Add signature: attach your signature to e-mails.

  Input signature: edit your signature.

- **Receiving options**: set up the options for receiving e-mails:

  Set download limit: determine the maximum size for incoming e-mails. Your phone will reject e-mails that exceed the specified size.

  Auto polling: set the phone to automatically check the e-mail server to download e-mails at the specified intervals.

  Polling frequency: set how often the phone checks the e-mail server for automatic polling.

  Read reply: determine whether or not the phone sends a read-reply when an incoming e-mail is read.

  Block address: specify e-mail addresses to reject e-mails from those addresses, and activate or deactivate mail blocking.

  Block subject: specify subjects to reject e-mails which contain those subjects you specify, and activate or deactivate mail blocking.

- **Email profiles**: select a network connection profile to be used for e-mail services. You can also create or edit a profile. ▶ p. 84

- **Email accounts**: set up an e-mail account and select an account to be used. Press <**Options**> and select **Edit** to access the following options for setting up an account:

  Account name: enter a name for the currently selected account.

  SMTP server: enter the IP address or host name of the outgoing e-mail server.

  SMTP port: enter the SMTP port number.

  Use SSL: activate the use of the SSL (Secure Sockets Layer) protocol.

  Retrieving server type: select the protocol for the incoming e-mail server. The remaining options depend on the protocol type setting.

  POP3 server/**IMAP4 server**: enter the IP address or host name of the POP3 or IMAP4 server.

  POP3 port/**IMAP4 port**: enter the POP3 or IMAP4 port number.

  Use SSL: activate the use of the SSL (Secure Sockets Layer) protocol.

  IMAP4 retrieving option: (IMAP4 protocol only): set whether the phone retrieves only new messages or all messages.

  Retrieving option: set which part of e-mails the phone retrieves from the server.

  Keep in server: leave the copies of e-mails in the server after retrieving.

  My Address: set your e-mail address.

  User name: enter the POP3 or IMAP4 user name.

  Password: enter the POP3 or IMAP4 password.

  Use SMTP Authentication: enable SMTP authentication, which requires the user to log in before sending e-mails.

  Same as POP3/IMAP4: select if you want the SMTP server to have the same parameters as the POP3 or IMAP4 server.

  User name: enter the SMTP user name.

  Password: enter the SMTP password.

Voice mail *(Menu 5.0.4)*

You can change the number of the voicemail server.

> ☑ You must store the voicemail server number before accessing the server. Your service provider can give you the number.

Video mail *(Menu 5.0.5)*

You can change the number of the videomail server.

> ☑ You must store the videomail server number before accessing the server. Your service provider can give you the number.

Push message *(Menu 5.0.6)*

You can change the settings for receiving push messages from the wireless web server.

- **Receiving option**: set whether or not to receive push messages from the web server.
- **Direct launch**: set whether or not your phone automatically launches the web browser to access a push message as it comes in.
- **Scrolling ticker**: set whether to display push message alerts in Idle mode.

Broadcast *(Menu 5.0.7)*

You can change the settings for receiving broadcast messages.

- **Receive**: select to receive broadcast messages, or not.
- **Channel**: indicate the channels from which you wish to receive broadcast messages. Please contact your service provider for further details.
- **Language**: select the preferred languages in which broadcast messages display.

Memory status *(Menu 5.*)*

Use this menu to view the memory status for Text message, Multimedia message, Email, Push message.

File manager *(Menu 6)*

The **File manager** menu allows you to access images, videos, music files, and sounds stored in the phone's memory or on a memory card.

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

Tips for Digital Rights Management

As a result of the Digital Rights Management (DRM) system, some of the media items you download from the Internet or receive by MMS may require a licence key to access them. You can acquire the key from the website which owns the rights to the content; use the **Activate key** option.

Note the following icons on the list:

- : Forwardable item with a valid key.
- : Forwardable item without a valid key.
- : Unforwardable item with a valid key.
- : Unforwardable item without a valid key.

Your phone supports only count-based or unlimited-access DRM files.

Images

Use this menu to access photos you have taken and images you have downloaded, received in messages, or imported from your computer.

Viewing an image

1. Scroll to an image folder.
2. Select an image.

Viewing a slide show

You can view your images as a slide show, a sequential presentation of each image in the current folder.

1. Scroll to an image folder.
2. Select an image.
3. Press <**Options**> and select **Slide show**.

   The slide show begins.
4. Press <**Back**> to stop the slide show.

Editing an image

1. Select a photo from the **Pictures** folder.
2. Press <**Options**> and select **Edit**.
3. Press <**Options**> and change the photo using the following options:
   - **Resize**: change the image size.
   - **Effects**: change the colour tone or apply a special effect to the photo.
   - **Adjust**: adjust the brightness, contrast, or colour balance.
   - **Frames**: apply a decorative frame.
   - **Cliparts**: add an image clip to the photo.
   - **Insert text**: add text to the photo.
   - **Rotate**: rotate the photo clockwise or counterclockwise.
   - **Flip**: flip the photo vertically or horizontally.
   - **Crop**: select a variously sized and shaped section of the photo.
4. When you have finished, press <**Done**>.
5. Press <**Options**> and select **Save as**.
6. Enter a new file name and press <**Save**>.

Using image options

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

- **Send**: send the file via MMS, TIMClick service, e-mail, File messenger, or Bluetooth.
- **Print** : print the file by connecting the phone to a printer via USB or Bluetooth. Some printers may not be compatible with the phone.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Set as**: set the image as your wallpaper for the main display or a caller ID image for a Contacts entry.
- **Move**: move the file to another folder.
- **Copy**: copy the file to another folder.
- **Real size**: view the image in its actual size. Press <**Phone size**> to fit the image to the display.

- **Slide show**: view all images as a slide show.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Edit**: edit the image and save it as a different file. ▶ p. 60
- **Delete**: delete the file.
- **Rename**: change the file name.
- **Details**: access the file properties.
- **Key management**: manage licence keys you have acquired.

Downloading images

1. Scroll to the **Downloads** folder.
2. Select **More pictures**. You are connected to the preset website by your service provider.
3. Search for the file you want and follow the onscreen instructions to download it.

Videos

Use this menu to access video clips you have recorded, downloaded, received in messages, or imported from your computer.

☑ Video clips recorded on other devices, such as camcorders, may not play correctly.

Playing a video clip

1. Scroll to a video folder.
2. Select a video clip. The media player opens and the selected video plays. ▶ p. 41

Using video options

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

- **Play**: play the selected file.
- **Add to play list**: add the selected file to the play list.
- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Move**: move the file to another folder.
- **Copy**: copy the file to another folder.
- **Delete**: delete the selected file or folder, or all files.
- **Rename**: change the file name.

- **Lock**/**Unlock**: lock the file to prevent it from being deleted, or unlock the file.
- **Delete folder**: delete the folder.
- **Rename folder**: change the folder name.
- **New folder**: add a new folder.
- **Details**: access the file properties.
- **Memory status**: access the memory information for each folder in **File manager**.
- **Key management**: manage licence keys you have acquired.

Downloading video clips

1. Scroll to the **Downloads** folder.
2. Select **More videos**. You are connected to the preset website by your service provider.
3. Search for the file you want and follow the onscreen instructions to download it.

Music

Use this menu to access music files you have downloaded or received in messages.

Playing a music file

Select a music file. The Media player opens and the selected music file plays. ▶ p. 41

Using music options

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

- **Play**: play the selected file.
- **Add to play list**: add the selected file to the play list.
- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Set as ringtone**: set the file as your ringtone for voice calls or video calls.
- **Set as caller ID**: set the file as a ringtone for a Contacts entry.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Move**: move the file to another folder.
- **Copy**: copy the file to another folder.
- **Delete**: delete the selected file or all files.
- **Rename**: change the file name.
- **Lock**/**Unlock**: lock the file to prevent it from being deleted, or unlock the file.
- **Delete folder**: delete the folder.
- **Rename folder**: change the folder name.
- **New folder**: add a new folder.
- **Details**: access the file properties.

- **Memory status**: access the memory information for each folder in **File manager**.
- **Key management**: manage licence keys you have acquired.

Downloading music files

1. Select **More music**. You are connected to the preset website by your service provider.
2. Search for the file you want and follow the onscreen instructions to download it.

Sounds

Use this menu to access voice memos you have recorded, and sound clips you have downloaded, received in messages, or imported from your computer.

Playing a sound clip

1. Scroll to a sound folder.
2. Select a sound clip. The Media player opens and the selected sound plays.

   For a voice memo, see **Voice recorder**. ▶ p. 72

During playback, use the following keys:

Keys	Description
Left	Moves to the previous file.
Right	Skips to the next file.
Up/Down/ ▲/▼	Adjusts the volume.
OK/i	Allows you to send the selected file to other people.

Using sound options

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

- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Delete**: delete the selected file.
- **Rename**: change the file name.
- **Set as ringtone**: set the file as your ringtone for voice calls or video calls.
- **Set as caller ID**: set the file as a ringtone for a Contacts entry.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Move**: move the file to another folder.
- **Copy**: copy the file to another folder.
- **Details**: access the file properties.

- **Key management**: manage licence keys you have acquired.

Downloading sound clips

1. Select **More ringtones**. You are connected to the preset website by your service provider.
2. Search for the file you want and follow the onscreen instructions to download it.

Games & more

Use this menu to download Java games and applications, and play them.

Playing a game

1. Select a game.
2. Follow the onscreen instructions.

Using Java game options

While viewing the game list, press <**Options**> to access the following options:

- **Download**: connect to the preset web site.
- **Play**: launch the selected game.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Move**: move the file to another folder.
- **Delete**: delete the selected game or all games.
- **Rename**: change the name of downloaded game.
- **Lock**/**Unlock**: lock the game to prevent it from being deleted, or unlock the game.
- **Permissions**: set whether or not the phone displays a security warning message when you use security functions.
- **Details**: access the game properties.
- **Key management**: manage the licence keys you have acquired.
- **Delete folder**: delete the folder.
- **Rename folder**: change the folder name.
- **New folder**: add a new game folder.
- **Network settings**: activate a connection profile to be used for accessing a Java server. You can also create or edit a profile. ▶ p. 84
- **Memory status**: access the memory information for each folder in **File manager**.

Downloading new games

1. Select **More games**. You are connected to a preset website by your service provider.
2. Search for a game and follow the onscreen instructions to download it.

Other files

Files that you have received but which are not supported by your phone are stored in this folder. You cannot open these files on the phone. Unsupported file formats include DOC, PPT, TXT, XLS, and PDF.

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

- **Send**: send the file via e-mail, File messenger, or Bluetooth.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Move**: move the file to another folder.
- **Copy**: copy the file to another folder.
- **Delete**: delete the selected file.
- **Rename**: change the file name.
- **Lock**/**Unlock**: lock the file to prevent it from being deleted, or unlock the file.
- **Details**: access the file properties.
- **Delete folder**: delete the folder.
- **Rename folder**: change the folder name.
- **New folder**: add a new game folder.

Memory card

Use this menu to access the files stored on the memory card. This option is only available when you insert a memory card into the phone.

For details about using files, see the corresponding menu.

Applications *(Menu 7)*

The **Applications** menu provide you with various entertaining and convenient features, such as media player, Bluetooth, calendar, voice recorder, alarm clock, calculator, etc.

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

SAT *(Menu 7.1)*

This menu is available if you use a USIM/SIM card that supports SIM Application Toolkit menus and 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 USIM/SIM card instructions or contact your service provider.

Media player *(Menu 7.2)*

You can enjoy music and video files from the phone's memory. ▶ p. 40

Bluetooth *(Menu 7.3)*

Using Bluetooth wireless, you can connect the phone wirelessly to other Bluetooth devices and exchange data with them, talk hands-free, or control the phone remotely.

Bluetooth technology allows free wireless connections between all Bluetooth-compliant devices within a range of 10 metres. Since the devices communicate using radio waves, they do not need to be in line of sight to each other.

- If there are obstacles between the devices, the operating distance may be reduced.
- It is recommended that you do not use the Bluetooth feature while using multimedia features, such as voice recorder, camera, and media player, or vice versa, for the better performance.
- Some devices may not be compatible with your phone.

Setting up the Bluetooth feature

The **Bluetooth** menu provides the following options:

- **Activation**: activate or deactivate the Bluetooth feature.
- **My devices**: search for connectable Bluetooth devices.
- **My phone's visibility**: allow other Bluetooth devices to locate your phone, or not.
- **My phone's name**: assign a Bluetooth device name to your phone, which is then displayed on other devices.
- **Secure mode**: determine if the phone asks for your confirmation when other devices access your data.
- **Bluetooth service**: display available Bluetooth services.

Searching for and pairing with a Bluetooth device

1. From the **Bluetooth** menu, select **My devices**.
2. Select **Search new device**.

   After searching, a list of devices to which you can connect displays. The following icons indicate the type of device:

   - Hands-free car kit or headset
   - Mobile phone
   - Computer

- PDA
- Unknown device
- Printer

The colour of the icon indicates the status of the device:

- Grey for unpaired devices
- Blue for paired devices
- Red for devices that are currently connected to your phone

3. Select a device.
4. Enter a Bluetooth PIN and press <**OK**>. This code is used just once and you do not need to memorise it.

   When the owner of the other device enters the same code, pairing is complete.

> ☑ Some devices, especially headsets or hands-free car kits, may have a fixed Bluetooth PIN, such as **0000**. If the other device has one, you must enter the code.

Using device options

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

- **Connect**: connect to a headset or hands-free car kit.
- **Disconnect**: end the connection with the connected headset or hands-free car kit.
- **Browse device**: search for data from the device and import data directly to your phone.
- **Service list**: access the Bluetooth service list of the device.
- **Authorise device**/**Unauthorise device**: determine whether or not the phone asks you to permit connection when other devices try to connect to your phone.
- **Delete**: remove the selected device or all devices from the list.
- **Rename**: rename the selected device.

Sending data via Bluetooth

1. Activate the Bluetooth feature.
2. Select the application in which the item you want to send is stored.
3. Scroll to the item you want and press <**Options**>.
4. Select **Send**/**Send name card**/**Send schedule**/**Send task**/**Send memo** → **Via bluetooth**.

   The phone searches for devices within range and displays a list of available devices.
5. Select a device.
6. If necessary, enter the Bluetooth PIN needed for pairing and press <**OK**>.

Receiving data via Bluetooth

To receive data via Bluetooth, your phone's Bluetooth feature must be active and its visibility must be enabled.

If an unauthorised Bluetooth device sends data to your phone, the phone displays a confirmation message. To receive data, press <**Yes**>.

Alarms *(Menu 7.4)*

Use this menu to set alarms to sound at specific times. The alert type for a normal alarm corresponds to the call alert type settings in the currently selected profile. A wake-up alarm does not be affected by your profile setting.

Setting an alarm

1. Select the type of alarm.
2. Set each alarm option:
   - **Alarm**: activate the alarm.
   - **Time**: enter the time for the alarm to sound.
   - **Repeat**: select a repeat option.
   - **Alert tone**: select an alarm tone.
3. Press <**Options**> and select **Save**.

Stopping an alarm

When the time for an alarm comes and the alarm sounds:

- For a non-wake-up alarm, press any key.
- For a wake-up alarm, press <**OK**> or [OK/*i*].

  Press <**Snooze**>, to cause it to sound again after 5 minutes. You can do this a maximum of 5 times.

  Press any key, except <**OK**>, [OK/*i*], or <**Snooze**>, to mute the alarm tone.

Deactivating an alarm

When you do not need an alarm any longer, you can deactivate it.

1. Select the alarm you want to deactivate.
2. Select **Off** on the **Alarm** line and press [OK/*i*].

Setting the alarm to sound when the phone is off

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

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

Viewing a missed event alarm

When you are unable to acknowledge an alarm for an event, the phone stores the missed alarm until you confirm it.

1. From the Alarm screen, select **Missed event alarm**.
2. Select an event.
3. Press <**Confirm**> to confirm and delete the event.

Calendar *(Menu 7.5)*

Use this menu to keep track of your monthly schedule.

Selecting a day on the calendar

When you enter the **Calendar** menu, the calendar appears with today's date indicated by a blue box.

- Press [Left] or [Right] to move by day.
- Press [Up] or [Down] to move by week.
- Press [▲/▼] to move by month.

Creating an item

You can store appointments and anniversaries, on the calendar. More than one item per day can be stored.

Entering an appointment

1. Select a date on the calendar.
2. Press <**Options**> and select **New** → **Schedule**.
3. Enter information or change the settings:
   - **Title**: enter the title for the appointment.
   - **Details**: enter the details of the appointment.
   - **Start** and **End**: enter the starting and ending times for the appointment.
   - **Start date** and **End date**: enter the starting and ending dates for the appointment.
   - **Location**: enter information about the appointed location.
   - **Alarm**: set an alarm for the appointment.
   - **before**: set how long before the appointment the alarm is to alert you.
   - **Repeat**: set the appointment to recur. You can select a repeat unit.
   - **until**: set the ending date, if the appointment will recur.
   - **Expiry**: set when the appointment will be deleted from the calendar.
4. Press <**Options**> and select **Save** to save the appointment.

Entering an anniversary

1. Select a date on the calendar.
2. Press <**Options**> and select **New** → **Anniversary**.
3. Enter information or change the settings:
   - **Occasion**: enter information about the anniversary.
   - **Date**: enter the date.
   - **Alarm**: set an alarm for the anniversary.
   - **before**: set how long before the anniversary the alarm is to alert you.
   - **alarm time**: enter the time for the alarm to sound.
   - **Repeat every year**: set the phone to remind you of the anniversary every year.
4. Press <**Options**> and select **Save**.

Consulting the calendar

Once you have created items, the square brackets appear on the corner of the date box.

Viewing an item

1. Select a date on the calendar to display the items for the day.
2. Select an item to view its details.

   The following icons indicate the types of items:

   - Scheduled items
   - Anniversaries

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

- **View**: access the selected item.
- **New**: add a new item.
- **View by**: change the view mode of the calendar. ▶ p. 71
- **Event list**: sort items by type of event.
- **Settings**: change the display settings for the calendar. You can set the starting day of the week and the default view mode.
- **Delete**: delete the selected item.
- **Delete all**: delete all of the items for the selected day.
- **Send schedule**: send the item via SMS, e-mail, or Bluetooth.
- **Print via Bluetooth**: print the item via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.

Using calendar options

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

- **View**: display the items stored for the selected date.
- **New**: add a new scheduled item, anniversary, task, or memo.
- **View by**: change the view mode of the calendar. ▶ p. 71
- **Event list**: sort items by type of item.
- **Settings**: change the display settings for the calendar. You can set the starting day of the week and the default view mode.
- **Go to today**: go to today's date.
- **Go to date**: enter the specific date you want to access.
- **Delete**: delete the items for the specific period.
- **Delete all**: delete all of the items in the calendar.
- **Missed event alarm**: view events whose alarms you have missed.
- **Memory status**: access memory information for calendar items, tasks, and memos you have stored.

Viewing an event in a different mode

You can change the calendar display to Day view or Week view. Press <**Options**> and select **View by** → a view mode.

Day view

You can view items for the selected date. If you have set the **Repeat** and **Alarm** options, the and icon display. Select an event to view its details.

Week view

You can view events for the selected week. A cell on the timetable indicates the presence of a schedule item. Select a cell in the day you want.

Task *(Menu 7.6)*

You can create a list of tasks you need to complete.

Entering a task

1. Press <**Options**> and select **New**.
2. Enter information or change the settings:
   - **Title**: enter the title for the task.
   - **Task**: enter task details.
   - **Start date**: enter the starting date.
   - **Due date**: enter the ending date.
   - **Priority**: select a priority level.
3. Press [OK/*i*] to save the task.

Viewing a task

From the task list, the triangle icons on the right indicate the importance; the lower the number on the icon, the higher the priority. A check mark appears in the status check box if the task has been completed. Select a task from the list.

Using task options

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

- **View**: access the selected task.
- **New**: add a new task.
- **Completed/To do**: change the status of the task.
- **Delete**: delete the task.
- **Delete all**: delete all tasks.
- **Send task**: send the task item as a data file via SMS, e-mail, File messenger, or Bluetooth.
- **Print via Bluetooth**: print task information via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.
- **Memory status**: access memory information for calendar items, tasks, and memos you have stored.

Memo *(Menu 7.7)*

You can create a list of memos.

Entering a memo

1. Press <**Options**> and select **New**.
2. Enter the memo text and press [Down].
3. Enter the date.
4. Press [OK/*i*] to save the memo.

Viewing a memo

The memo list shows memo text and dates when memos were created. Select a memo from the list.

Using memo options

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

- **View**: access the selected memo.
- **New**: add a new memo.
- **Delete**: delete the selected memo.
- **Delete all**: delete all memos.
- **Send memo**: send the memo via SMS.
- **Print via Bluetooth**: print the memo via a Bluetooth-compatible printer. Some printers may not be compatible with the phone.
- **Memory status**: access memory information for calendar items, tasks, and memos you have stored.

Voice recorder *(Menu 7.8)*

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

Recording a voice memo

1. Press [OK/*i*] to start recording.
2. Speak into the microphone.

   Press [OK/*i*] to pause or resume the recording.
3. Press <**Stop**> or [Down]. The voice memo is automatically saved.
4. Press [OK/*i*] to review the memo, or [Up] to record additional memos.

Playing a voice memo

1. From the voice recorder screen, press <**Options**> and select **Go to sounds**.
2. Select a voice memo from the **Voice memos** folder. The selected memo plays.

During playback, use the following keys:

keys	Function
OK/*i*	Pauses or resumes playback.
Left	Moves backward in a file.
Right	Skips forward in a file.
▲/▼	Adjusts the volume.
Down	Stops playback.

keys	Function
Up	Switches to Review mode ( ) or back to Record mode ( ).

Using voice recorder options

After playback, press <**Options**> to access the following options:

- **Play**: play the selected voice memo in Review mode.
- **Record**: record a new voice memo.
- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Activate key**: get a new licence key when the key for the selected DRM file expires.
- **Reactivate key**: get another licence key even when the key for the selected DRM file has not expired.
- **Go to sounds**: access the voice memo list.
- **Delete**: delete the file.
- **Rename**: change the file name.
- **Hidden from Bluetooth**: hide the file so that other Bluetooth devices cannot access it.
- **Visible to Bluetooth**: share the file with other Bluetooth devices.
- **Details**: access the file properties.
- **Record settings**: customise the default settings for the voice recorder:

  Default name: change the default prefix of file names.

  Recording time: select a maximum recording time.

World clock *(Menu 7.9)*

Use this menu to set your local time zone and find out the current time in another part of the world.

Setting the local time zone

1. From the world map, press [Left] or [Right] to scroll to the city you want on the upper line ( ). As the time line moves, the time and date of the given zone display.
2. Press [OK/*i*] to save the time zone.

Viewing world time

1. From the world map, move to the lower line ( ).
2. Press [Left] or [Right] to scroll to the city you want.
3. Press [OK/*i*] to save the time zone.

Applying daylight savings time

1. From the world map, press <**Options**> and select **Summer time**.
2. Press [OK/*i*] to select the time zones you want.

3. Press <**Select**>.
4. Press [OK/*i*] to save the setting.

Calculator *(Menu 7.0)*

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

Performing a calculation

1. Enter the first number.

   Press [*] to include a decimal point.
2. Enter the operation for your calculation by pressing the Navigation keys.
3. Enter the second number.
4. Press [OK/*i*] to view the result.

Using calculator options

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

- **Equal**: view the result.
- **Recent calculation**: display the last result you calculated.
- **Save to memory**: save a value into the calculator memory.
- **Recall memory**: retrieve the saved value.
- **Clear memory**: clear the saved values.

Converter *(Menu 7.*)*

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

Performing a conversion

1. Select converter.
2. Press [Left] or [Right] to select the original unit and press [Down].
3. 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 (-).
4. Press [Left] or [Right] to select the unit you want to convert to.

   The equivalent value for the amount you entered displays.

Using converter options

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

- **Clear**: clear the current values.
- **Reverse**: reverse the conversion.
- **Currency rates**: display the currency rate list.

Photo slide *(Menu 7.#)*

Use this menu to make a slide show of your photos. (???)

Camera *(Menu 8)*

You can use the camera module embedded in your phone to take photos and record videos. Using the **Camera** menu, you can turn on the camera.

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

- 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.

Taking a photo

The camera will produce JPEG photos.

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

Taking a photo

1. Access the **Camera** menu to turn on the camera and switch the display to Capture mode. You can also press and hold [📷] in Idle mode.
2. Make any desired adjustments.
   - Press <> to use the camera options. ▶ next section
   - Use the keypad to change the camera settings or switch to other modes. ▶ p. 76
3. Press [OK/*i*] or [📷] to take a photo. The photo is saved in the **Pictures** folder.
4.

To	Press
use photo options	<> or <**Options**>. ▶ p. 77
delete the photo	<>,<**Delete**>, or [**C**] and then <**Yes**>.
return to Capture mode	[OK/*i*] or <**Back**>.

Using camera options in Capture mode

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

- **Take photo**: take a photo.
- **Record video**: switch to Record mode.
- **Go to Photos**: access the **Pictures** folder. ▶ p. 59
- **Shooting mode**: take a photo in the following modes:

  Single shot: take a photo in Normal mode. You can select whether or not the camera automatically saves a photo.

  Multi shot: take a series of action stills. You can select the number of photos the camera will take.

  Mosaic shot: take several stills and save them in one frame. You can select the layout.

- **Effects**: change the colour tone of the image.
- **Frames**: apply a decorative frame.
- **Timer**: set a time delay before the camera takes a photo.
- **Zoom**/**Hide zoom**: display the zoom control bar and zoom in or out by pressing [Up] or [Down], or hide the control bar.
- **Brightness**/**Hide brightness**: display the brightness control bar and adjust the brightness by pressing [Left] or [Right], or hide the control bar.
- **Camera settings**: change the default settings for taking a photo:

  Default name: change the default prefix of file names.

  Default storage: select a default memory location for storing photos.

  Viewfinder: select a preview screen.

  Shutter sound: select a camera shutter sound.

  Capture quality: select an image quality.

  Image size: select an image size.

  Multi shot speed: select the shooting speed in Multi Shot mode.

  Spot metering: adjust the exposure based on a specific area of the image. Select **On** to display the spot focus frame in the middle of the image, and change the exposure according to the brightness of the image fragment in the frame.

  White balance: adjust the colour balance of the photo. You can make your photo appear warmer or cooler.
- **Camera shortcuts**: view the functions of the keys you can use in Capture mode.

Using the keypad in Capture mode

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

Key	Function
Left/Right	Adjusts the brightness.
Up/Down	Zooms in or out. (Not available for the maximum size)
▲	Flips the image vertically.
▼	Shows the mirror image.
1	Switches to Record mode. ▶ p. 77
2	Changes the image size.
3	Changes the image quality.
4	Changes the shooting mode.
5	Changes the colour tone.
7	Selects a decorative frame.

Key	Function
8	Sets the timer.
0	Goes to the **Pictures** folder.
#	Changes the preview screen.

Using photo options

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

- **Viewfinder**: return to Capture mode.
- **View**: access one of the multi-shot photos.
- **Send**: send the file via MMS, TIMClick service, e-mail, File messenger, or Bluetooth.
- **Delete**: delete the file.
- **Set as**: set the photo as wallpaper for the main display, or as a caller ID image for a Contacts entry.
- **Go to Photos**: access the **Pictures** folder. ▶ p. 59
- **Rename**: change the file name.

Recording a video

You can record a video of what is displayed on the camera screen and save it.

Recording a video

1. In Capture mode, Press [**1**] to switch to Record mode.
2. Make any desired adjustments.
   - Press <> to use the camera options. ▶ next section
   - Use the keypad to change the camera settings or switch to other modes. ▶ p. 78
3. Press [OK/*i*] or [] to start recording.
4. Press [OK/*i*] or [] to stop recording. The video automatically saves in the **Videos** folder.
5.

To	Press
use the video options	<**Options**>. ▶ p. 78
delete the video clip	<**Delete**> or [**C**], and then <**Yes**>.
return to Record mode	[OK/*i*].

Using camera options in Record mode

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

- **Record**: start recording.
- **Take photo**: switch to Capture mode.
- **Go to Videos**: access the **Videos** folder. ▶ p. 61
- **Effects**: change the colour tone of the image.
- **Zoom/Hide zoom**: display the zoom control bar and zoom in or out by pressing [Up] or [Down], or hide the control bar.
- **Brightness/Hide brightness**: display the brightness control bar and adjust the brightness

by pressing [Left] or [Right], or hide the control bar.

- **Video settings**: change the following settings for recording a video:

  Default name: change the default prefix of file names.

  Default storage: select a default memory location for storing videos.

  Quality: select an image quality.

  Recording time: select a video recording mode.

  Select **Limit for MMS** to record a video suitable for an MMS message.

  Select **Normal** to record a video within the limit of the currently available memory. The length of your video is determined by how much memory has been used.

  Size: select a frame size.

  Audio record: turn the audio on or off.
- **Camcorder shortcuts**: view the functions of the keys you can use in Record mode.

Using the keypad in Record mode

Key	Function
Left/Right	Adjusts the brightness.
Up/Down	Zooms in or out.
▲	Flips the image vertically.
▼	Shows the mirror image.
1	Switches to Capture mode. ▶ p. 75
2	Changes the frame size.
3	Changes the image quality.
4	Changes the video recording mode.
5	Changes the colour tone of the image.
7	Mutes or unmutes audio.
0	Goes to the **Videos** folder.

Using video options

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

- **Play**: play back the file.
- **Viewfinder**: return to Record mode.
- **Send**: send the file via MMS, e-mail, File messenger, or Bluetooth.
- **Delete**: delete the file.
- **Go to Videos**: access the **Videos** folder. ▶ p. 61
- **Rename**: change the file name.

Settings *(Menu 9)*

The **Settings** menu provides you with various setting options to customise the phone to your preferences and needs. You can also reset the settings to their default status.

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

Profiles *(Menu 9.1)*

Your phone provides you with sound profiles that allow you to quickly and easily change the sound settings of the phone for different events or situations. Use this menu to adjust the properties of each profile and activate the profile you need.

Editing a profile

1. Scroll to the profile you want.
2. Press <**Options**> and select **Edit**.
3. Change the sound settings:
   - **Call alert type**: select an alert type for the call ringer.
   - **Voice call ringtone**: select a ringtone for the call ringer of voice calls.
   - **Video call ringtone**: select a ringtone for the call ringer of video calls.
   - **Tone volume**: adjust the volume for the call ringer.
   - **Message alert type**: select an alert type for the message ringer.
   - **Message alert tone**: select a ringtone for the message ringer.
   - **Message alert repetition**: select if the phone repeatedly reminds you of a new message.
   - **Phone sounds**: turn the various sounds on the phone on or off:

     All on: enable all tones.

     Popup box alerts: set the phone to beep when a pop-up window displays.

     Minute minder: set the phone to beep every minute during an outgoing call to keep you informed of the length of your call.

     Call connect tone: set the phone to beep when an outgoing call is connected to the system.

     Call end tone: set the phone to beep when a call is disconnected by the other person or due to a faded signal.

     Power on/off: set the phone to beep when you turn it on or off.

     Folder open/close: set the phone to sound when you open or close it.

     Alerts on call: set the phone to beep when you receive a new message or when the time for an alarm comes during a call.

- **Key tones**: select a tone which sounds when you press a key.
- **Key tone volume**: adjust the volume of the key tones.
- **Call answer mode**: (For Car) select how to answer an incoming call.

4. When you have finished, press <**Options**> and select **Save**.

Changing an active profile

From the profile list, select the profile you want.

Time & date *(Menu 9.2)*

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 **World clock** menu. ▶ p. 73

- **Time**: enter the current time.
- **Date**: enter the current date.
- **Time format**: select a time format.
- **Date format**: select a date format.
- **Summer time**: select to apply daylight savings time.
- **Auto update**: select to receive time information from your network.

Phone *(Menu 9.3)*

Many different features of your phone's system can be customised to suit your preferences.

Language *(Menu 9.3.1)*

Use this menu to select one of several languages for the display text or T9 input mode.

Shortcuts *(Menu 9.3.2)*

You can use the Navigation keys as shortcut keys to access specific menus directly from Idle mode. Use this menu to assign a shortcut to a key.

Assigning a shortcut menu

1. Select a key to be used as a shortcut key.
2. Select a menu to be assigned to the key.

Using shortcut options

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

- **Assign**: assign a shortcut menu to an empty location.
- **Change**: change a shortcut assignment.
- **Remove**: deactivate the shortcut assignment to the selected key.
- **Remove all**: deactivate all shortcut assignments.

Active folder *(Menu 9.3.3)*

Use this menu to answer incoming calls by opening the phone.

Anykey answer *(Menu 9.3.4)*

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

Volume key *(Menu 9.3.5)*

Use this menu to set whether the phone mutes the call ringer or rejects a call if you press and hold [▲/▼] when a call comes in.

Key management *(Menu 9.3.6)*

Use this menu to manage the licence keys you have acquired to activate media contents locked by DRM systems.

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

- **View**: open the corresponding media item.
- **Delete**: delete the selected licence key.
- **Go to My Messages**: access the message that contains the media content.
- **Go to File manager**: access the corresponding file folder.
- **Details**: access the properties of the licence key.

Cover keypad lock *(Menu 9.3.7)*

Use this menu to lock the exposed keys to keep accidental presses from affecting your phone's operation when the phone is closed.

Display *(Menu 9.4)*

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

Greeting message *(Menu 9.4.1)*

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

Wallpaper *(Menu 9.4.2)*

You can set up the idle screen.

- **Wallpaper**: change the background image. You can select one of the images in the **Images** folder, or create a photo slide of your favourite images.
- **Time & date**: set whether or not the current time and date display.
- **Clock type**: select a clock type for displaying the time and date.

LCD brightness *(Menu 9.4.3)*

Use this menu to adjust the brightness of the main display for varying lighting conditions.

Backlight *(Menu 9.4.4)*

You can select the length of time the backlight or display stays on.

- **On**: select the length of time the backlight stays on in times of inactivity.

- **Dim**: select the length of time the display stays on in Dim mode after the backlight turns off. After a specified time, the display turns off.

Dialling display *(Menu 9.4.5)*

Use this menu to select a font colour and size for the numbers entered and the background colour of the display while dialling.

Call *(Menu 9.5)*

Use this menu to set options for call functions.

Caller ID *(Menu 9.5.1)*

This network service allows you to hide your phone number from the person you are calling. If you select **By network**, the phone will use the default setting provided by the network.

> ☑ Some networks do not allow the user to change this setting.

Diverting *(Menu 9.5.2)*

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

1. Select the type of calls to be diverted.
2. Select a call diverting option:
   - **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 your service area or when your phone is switched off.
   - **Cancel all**: cancel all call diverting options.
3. Enter the number to which the calls will be diverted in the **Divert to** line.
4. If you selected **No reply**, move to the **Waiting time** line and select the length of time the network delays before diverting a call.
5. Press <**Options**> and select **Activate**. To deactivate the call diverting, select **Deactivate**.

Barring *(Menu 9.5.3)*

This network service allows you to restrict your calls.

1. Select the type of calls to be barred.
2. Select a call barring option:
   - **All outgoing calls**: prohibit all outgoing calls.
   - **Outgoing int'l calls**: prohibit international calls.
   - **Int'l calls exc.home**: only allow calls to numbers within the current country when you are abroad, and to your home country.
   - **All incoming calls**: prohibit incoming calls.

- **Incoming calls when roaming**: prohibit incoming calls when you use your phone outside of your home service area.
- **Cancel all**: cancel all call barring settings, allowing calls to be sent and received normally.

3. Enter the call barring password supplied by your service provider.
4. Press <**Options**> and select **Activate**. To deactivate the call barring, select **Deactivate**.

> ☑ You can change the call barring password obtained from your service provider. From the call type list, press <**Options**> and select **Change password**.

Waiting *(Menu 9.5.4)*

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 <**Options**> and select **Activate**. To deactivate the call waiting, select **Deactivate**.

Auto redial *(Menu 9.5.5)*

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

Closed user group *(Menu 9.5.6)*

Use this menu to set incoming and outgoing calls to be restricted to a selected user group. For details about how to create a closed user group, contact your service provider.

- **Use user group**: activate CUG index numbers.
- **Outside access**: enable calls to numbers other than those in the Closed user group. This feature depends on the nature of your CUG subscription.
- **Default group**: enable the default CUG, if you have set one with your service provider. When making a call, you are given the option of using your default CUG, instead of selecting one from the list.
- **Group index**: add, delete, or activate CUG index numbers.

Video call *(Menu 9.5.7)*

Use this menu to change the default settings for using the video call feature.

- **Show me**: change the video camera settings for receipt of video calls:

  Optionally: you can select whether or not the video camera is used each time you answer a video call.

  Always: the camera is always used.

- **Retry by**: set what to do when a video call does not connect:

  Voice call: the phone retries with a voice call.

  MMS: the phone turns on the camera and switch to Record mode so that you can record a video and send it as an MMS message.

  None: the phone does not retry.
- **Video gateway number**: set the number of the videomail server. Once you have set the number, you can access the server by pressing and holding [**2**] in Idle mode.

Connectivity *(Menu 9.6)*

Use this menu to set options for connection available on your phone.

Network *(Menu 9.6.1)*

Use this menu to change the settings for connecting to your cellular network.

- **Network selection**: select the network to be used while roaming outside of your home area, or to let the network be chosen automatically. You can select a network other than your home network only if there is a valid roaming agreement between the two.
- **Network mode**: select the network you use:

  Automatic: the phone scans for available networks.

  GSM900/1800: the phone operates in the combined GSM 900/1800 network.

  GSM1900: the phone operates in the GSM 1900 network. This option is only available in the U.S.A.

  UMTS: the phone operates in UMTS (3G network) networks. You can get a higher speed connection than on lower generation networks, and use advanced data and information services, such as video calls.

Connections *(Menu 9.6.2)*

Use this menu to create and customise the profiles containing the settings for connecting your phone to the network. You need these settings to use the web browser or send MMS messages or e-mails.

> ☑ Your phone is set up by default for connecting to the network by default. If you change the settings without first checking with your service provider, the web browser, MMS, and e-mail features may not work properly.

Creating a profile

1. Press <**New**>, or press <**Options**> and select **New**.
2. Specify profile parameters:
   - **Set name**: enter a profile name.
   - **Access name**: edit the access point name used for the address of the GPRS network gateway.

- **Auth type**: choose the type of authentication used.
- **User ID**: enter the user ID.
- **Password**: enter the user password.
- **Protocol**: select the protocol between **WAP**, **HTTP**, and **Other**.
- **Home URL**: enter the URL address of the page to be used as your homepage.
- **Gateway address**: (WAP only) enter the gateway address of the proxy server.
- **Proxy address**/**Port**: (HTTP only) set the proxy server address and port.
- **Secure connection**: (WAP only) turn the secure mode on or off.
- **Linger time (sec.)**: set a time period after which the network is disconnected if there has been no new data traffic in that time.
- **Advanced settings**: provide you with the following options:

  Static IP: specify if you want to manually enter an IP address; see the **Local phone IP** option. If you want the IP address to be automatically assigned by the server, remove the check mark.

  Local phone IP: enter the IP address obtained from the service provider, if you checked the **Static IP** option.

  Static DNS: specify if you want to manually enter the Domain Name Server (DNS) address; see the **Server 1**/**Server 2** option.

  If you want the address to be automatically assigned by the server, remove the check mark.

  Server 1/**Server 2**: enter the Domain Name Server (DNS) addresses.

  Traffic class: select the traffic class.

3. Press <**Save**> to save the profile.

Using profile options

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

- **View**: check the parameters in a profile.
- **Edit**: edit the selected profile.
- **New**: add a new profile.
- **Rename**: change the profile name.
- **Delete**: delete the profile.
- **Restore**: restore the changed settings to the default status.

☑ You cannot edit or delete the default connection profiles.

Application settings *(Menu 9.7)*

You can customise the settings for using applications available on the phone.

Internet *(Menu 9.7.1)*

Use this menu to select a connection profile to be used for accessing the Internet. You can also create or edit a profile. ▶ p. 84

Messages *(Menu 9.7.2)*

Use this menu to change the default settings for using the message feature. ▶ p. 55

Contacts *(Menu 9.7.3)*

Use this menu to change the settings for using Contacts. ▶ p. 37

Camera *(Menu 9.7.4)*

Use this menu to change the default settings for taking photos. ▶ p. 76

Video recorder *(Menu 9.7.5)*

Use this menu to change the default settings for recording video clips. ▶ p. 78

Voice recorder *(Menu 9.7.6)*

Use this menu to change the default settings for the voice recorder. ▶ p. 73

Media player *(Menu 9.7.7)*

Use this menu to change the default settings for playing media files in the media player. ▶ p. 41

VOD *(Menu 9.7.8)*

Use this menu to activate a connection profile to be used for accessing streaming servers to use VOD (Video on Demand) services. You can also create or edit a profile. ▶ p. 84

Security *(Menu 9.8)*

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

☑ If you enter an incorrect PIN/PIN2 three times in a row, the USIM/SIM card is blocked. To unblock it, you need to enter your PUK/PUK2 (Personal Unblocking Key). The codes are supplied by your service provider.

Phone lock *(Menu 9.8.1)*

Use this menu to protect 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 phone password** menu.

SIM lock *(Menu 9.8.2)*

This menu allows your phone to work only with the current USIM/SIM by assigning a USIM/SIM lock code. You must enter the USIM/SIM lock code to use a different USIM/SIM card.

PIN lock *(Menu 9.8.3)*

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

Fixed dialling mode *(Menu 9.8.4)*

If supported by your USIM/SIM card, Fixed Dialling 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 on the USIM/SIM card.

Change phone password *(Menu 9.8.5)*

Use this menu to change your phone password.

Privacy lock *(Menu 9.8.6)*

Use this menu to lock access to messages, media files, Contacts entries, or call logs. When a lock option is enabled, you must enter the phone password to access the locked items.

Change PIN code *(Menu 9.8.7)*

Use this menu to change your PIN. The PIN lock feature must be enabled to change the PIN.

Change PIN2 code *(Menu 9.8.8)*

If supported by your USIM/SIM card, use this menu to change your current PIN2.

Memory status *(Menu 9.9)*

Use this menu to check the amount of memory being used for storing data, such as Text message, Multimedia message, Email, Push message, File manager, Contacts, and Organiser items. You can also view the amount of shared memory and memory status of a memory card, if inserted into the phone.

Reset settings *(Menu 9.0)*

Use this menu to reset the phone's settings you have changed and clear all data you have added.

1. Enter the phone password and press <**Confirm**>.

   ☑ The password is preset to **00000000**. You can change this password. ▶ p. 86

2. Press <**Yes**>. The phone automatically turns itself off and then back on.

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:

"Please insert SIM card"

- Be sure that the USIM/SIM card is correctly installed.

"Phone lock"

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

"PIN lock"

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

"PUK lock"

- The PIN code was entered incorrectly three times in succession, and the USIM/SIM card 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 that 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 that your phone is switched on. ([ ] pressed for more than one second.)
- Be sure that 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 that you have switched on the microphone.
- Be sure that 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 “Low battery” 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 **Search contact** feature to ensure the number has been stored correctly.
- Re-store the number, if necessary.

The battery doesn’t charge properly or the phone sometimes turns itself off

- Wipe the charging contacts both on the phone and on the battery with a clean soft cloth.

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.

Health and Safety Information

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: 0.634W/Kg, Body-worn: 0.291W/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 A3LSGHP920

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.

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

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?

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?

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.

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

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