* Depending on the software installed or your 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   SAMSUNG

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**SCH-X979
User's Guide**

Important safety precautions

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

Drive safely 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 accessories and batteries. Use of any unauthorised accessories could damage your phone and may be dangerous.

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

Use of authorised software

Use only Samsung-authorised software. The use of any unauthorised software could damage your phone.

Qualified service

Only qualified service personnel may repair your phone.

For more detailed safety information, see "Health and safety information" on page 47

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 "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**>

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

Special features of your phone

- **Phonebook**
  Store home, office, or cellular phone numbers for your contacts.

- **Short message service (SMS)**
  Chat and share interest with your friends, family, or co-workers by SMS messages.

- **Game**
  Enjoy embedded games on your phone..

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

- **Alarm**
  Use your phone as an alarm clock to wake you up in the morning or notify you of an impending event.

- **Calculator**
  Perform basic calculations and do currency conversions.

Contents

Overview of menu functions

To access Menu mode, press <**Menu**> in Idle mode.

Unpack

Make sure you have each item

Phone	Travel Adapter
Battery	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.
• Use the purchased accessories with only Samsung-authorised devices.
• The use of these accessories with other devices could
cause problems and any repair costs would not be covered by the warranty.

Your phone

First steps to operating your phone

UIM card information

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

Install and charge the phone

1 Remove the battery cover.

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

2 Insert the UIM card.

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

3 Install the battery.

4 Replace the cover.

5 Plug the travel adapter into the phone.

6 Plug the adapter into a standard AC wall outlet.

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

Remove the adapter from the phone.

Low battery indicator

When the battery is low:

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

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

Power on or off

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

Power off	Press and hold [🔥].

Keys and display

Keys

⬚ ⬚	Perform the functions indicated on the bottom line of the display.
⬚	In Idle mode, access the following menus directly. • [Up]: **Message**;**Voice Message** when pressed and held. • [Down]: **Game** • [Left]: **View month** • [Right]: **Sound** In Menu mode, scroll through the menu options.
i key	In Idle mode, access the **R-Menu** menu.
⬚	Make or answer a call. In Idle mode, retrieve the last number dialled, missed, or received.
⬚	End a call. Press and hold to switch the phone on or off. In Menu mode, cancel input and return the phone to Idle mode.
⬚	Delete characters from the display. In Menu mode, return to the previous menu level.
⬚ ⁝ ⬚	Enter numbers, letters, and some special characters.
⬚ ⬚	Enter special characters. In Idle mode, press and hold [#] to activate or deactivate Silent mode. In Standby mode, enters the **Ringer** menu when pressed and held [*].

Display

Layout
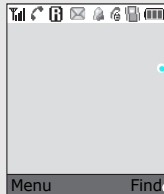
Icons
displays various icon.

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

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

Menu   Find

Icons

📶	Received signal strength
🖩	Roaming
☎	Call in progress
✗	Out of your service area; you cannot make or receive calls

Icons
(continued)

✉	New SMS message
📨	New voicemail
⏰	Alarm set
🔒	Lock mode
🔏	Restriction on
♩	Ringer type setting ▸ p. 38

- ♩ : Ringer only
- ✗ : Silent
- ♩ : 1 beep
- ⫴ : Vibration
- ♩ : Vib. & Ringer
- ♩ : Vib. then ringer
- ♩ : Ringer then vib.

🔇	Silent mode ▸ p. 12
🔋	Battery power level

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Access menu functions

Use the soft keys

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

Press the left soft key to access Menu mode.

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

Select an option

1. Press the appropriate soft key.

2. Press the Navigation keys to move to the next or previous option.

3. Press <**Select**>, <**OK**>, or <**Save**> to confirm the function displayed or option highlighted.

4. To exit, choose either of the following methods:
   - Press [**C**] to move up one level.
   - Press [🕾] to return to Idle mode.

Press the number key corresponding to the option you want.

Customise your phone

Display language

1. In Idle mode, press <**Menu**> and select **Setup** → **Display** → **Language**.

2. Select a language.

Call ringer melody

1. In Idle mode, press <**Menu**> and select **Setup** → **Sounds** → **Ringer** → **Voice calls**.

2. Press [Down].

3. Press [Left] or [Right] to scroll to a ringer category.

4. Press [Up] or [Down] to scroll to a ringer melody. Press <**Play**> to listen to a melody.

5. When you find the melody you want, press <**OK**>.

Your phone

Idle mode wallpaper

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

1. In Idle mode, press <**Menu**> and select **Setup** → **Display** → **Animation** → **Wallpaper**.

2. Press the Navigation keys to scroll to the image you want.

3. Press <**Select**>.

Idle mode banner

1. In Idle mode, press <**Menu**> and select **Setup** → **Display** → **Banner**.

2. Press and [**C**] to clear the default banner.

3. Enter a new banner.

4. Press <**OK**>.

Silent mode

You can switch the phone to Silent mode 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 **Setup** → **Security**.

2. Enter the default password, **00000000** and press <**OK**>.

3. Select **Change lock**.

4. Enter a new 4- to 8- digit password and press <**OK**>.

5. Enter the new password again and press <**OK**>.

6. Select **Phone lock**.

7. Select **Once** or **On**.

Make/Answer calls

Make a call

1. Enter an area code and phone number.

2. Press [↘].

3. To end the call, press [◜◦].

Answer a call

1. When the phone is ringing, press [↘].

2. To end the call, press [◜◦].

Adjust the volume during a call

Press [▲] or [▼].

Step outside the phone

Begin with Phonebook, messages, and other features

Use Phonebook

Add an entry

To the phone's memory:

1. In Idle mode, enter a phone number and press <**Save**>.

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

3. Press <**Phone**> and select a number type.

4. Specify the contact information: Location number, Home, Office, Mobile, Pager, Fax, E-Mail1, E-Mail2, URL, ETC, Default number, Group, and Ringer.

5. Press <**Save**> to save the entry.

To the UIM card:

1. In Idle mode, enter a phone number and press <**Save**>.

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

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

Find an entry

1. In Idle mode, press <**Find**>.

2. Select an entry.

3. Scroll to a number and press [↖] to dial, or <**Options**> to access options.

Send/View messages

Send a text message

1. In Idle mode, press <**Menu**> and select **Message** → **New message**.
2. Enter the message text and press <**OK**>.
3. Select **Save & Send** or **Send only** or **Save only**.
4. Enter destination numbers.
5. Press <**OK**> to send the message.

View a text message

When a notification appears:

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

View a text message (continued)

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Message** → **Inbox** → **Phone** or **Card**.
2. Select a message.

Access voicemails

When a notification appears:

1. Press [↘]. The phone dials the voicemail centre.
2. Follow the instructions from the system.

From the Inbox:

1. In Idle mode, press <**Menu**> and select **Message** → **Inbox** → **Voice mail**.
2. Follow the instructions from the system.

Use the alarm clock

Set an alarm

1. In Idle mode, press <**Menu**> and select **Scheduler** → **Alarm set**.

2. Select **Once** or **Daily**.

3. Enter the alarm time and press <**Save**>.

Stop an alarm

When the alarm sounds, press any key.

Manage schedule

Enter an event

1. In Idle mode, press <**Menu**> and select **Scheduler** → **View month**.

2. Scroll to a day from the calendar.

3. Press <**Options**> and select **Add new**.

4. Enter event information and press <**OK**>.

5. Enter the starting time and date for the event.

6. Press [Down] and enter the ending time and date.

7. Press [Down].

8. Press [Left] or [Right] to change the alarm setting.

9. Press <**Save**>.

1. In Idle mode, press <**Menu**> and select **Scheduler** → **Today**.

2. Press [Left] or [Right] to view today's events.

3. Press [Down] to check the ending time and date for an event.

Step outside the phone

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Enter text

ABC, T9 Word, 123, and Symbol mode

You can enter text for some features such as messaging, Contacts, or Calendar, using T9 Word and ABC mode for English. You can also use 123 mode and Symbol mode.

Changing the text input mode

1. In the text entry screen, press <**Mode**>.
2. Select the mode you want.

Using 123 mode

123 mode enables you to enter numbers. Press the keys corresponding to the digits you want.

Using Symbol mode

Symbol mode enables you to enter symbols.

1. Press [Left] or [Right] to display more symbol sets.
2. Press the key corresponding to the symbol you want.

Using ABC mode

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

Key	Characters in order displayed	
	Upper case	Lower case
1	. @ , : ? - ; ' / ( ) ! # % & * < > _ + = " \ { } $ [ ] 1	
2	A B C 2	a b c 2
3	D E F 3	d e f 3
4	G H I 4	g h i 4
5	J K L 5	j k l 5
6	M N O 6	m n o 6
7	P Q R S 7	p q r s 7
8	T U V 8	t u v 8
9	W X Y Z 9	w x y z 9
0	0	

Tips for using ABC mode

- To enter the same letter twice or to enter a different letter on the same key, wait for the cursor to move to the right automatically, or press [Right]. Then, enter the next letter.
- Press [#] to insert a space.
- Press [✶] to change case. Initial capital (Abc), Lower case (abc), and Capital lock (ABC) are available.
- 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 T9 Word mode

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

Entering a word in T9 Word mode

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

   Example: Press [**4**], [**3**], [**5**], [**5**], and [**6**] to enter *Hello*.

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 the characters.

3. When the word displays correctly, go to step 4. Otherwise, press [**0**] to display alternative word choices for the keys that you have pressed.

   For example, *Of* and *Me* use [**6**] and [**3**].

4. Press [#] to insert a space and enter the next word.

Tips for using T9 Word mode

- Press [**1**] to enter periods or apostrophes automatically.
- Press [✶] to change case. Initial capital (**T9 Word**), Lower case (**T9 word**), and Capital lock (**T9 WORD**) are available.
- 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.

Call functions

Advanced calling features

Making a call

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

- Press [**C**] to clear the last digit or press and hold [**C**] to clear the whole display.
- Press <**Pause**> to enter a pause between numbers.

Redialling recent numbers

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

Making a call from Phonebook

Once you have stored a number in Phonebook, you can dial the number by selecting it from Phonebook. ▶ p. 25

Speed dialling

When you store a number in Phonebook or on the UIM card, a location number is assigned to the number so that you can dial it by entering its location number.

To dial a number from Phonebook, enter a location number and press and hold [#].

To dial a number from the UIM card:

- For 1-digit locations, press and hold the corresponding number key.
- For other locations, press the first number key(s) and press and hold the last number key.

Ending a call

Press [⌖].

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Answering a call

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

Press [↘] to answer the call.

Tips for answering a call

- Depending on the setting in the **Answer mode** menu, you can press any key, except for [⌀] and the soft keys to answer a call. ▶ p. 41
- Press <**Reject**> or [⌀] to reject a call.
- Press <**Silence**> to mute the ringer.

Viewing missed calls

If you have missed calls, the screen displays the number of the calls and the phone number of the last call.

- Press [↘] to dial the displayed number.
- Press the right soft key to access the missed call log list.

Using the headset

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

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

The button on the headset works as listed below:

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

Options during a call

You can access a number of functions during a call.

Adjusting the volume during a call

Use [Up] or [Down] to adjust the earpiece volume during a call.

Press [Up] to increase the volume and [Down] to decrease the volume.

Answering a second call

If you have subscribed to call waiting, you can answer another call during a call.

1. Press [↘] to answer a second call. The first caller is placed on hold and you are connected with the second caller.
2. Press [↘] again to switch between the calls.

Making a three-way call

If you have activated three-way calling service, you can have a conversation with two people simultaneously.

1. During a call, press [↘] and make another call or answer a second call. The first caller is placed on hold.
2. Press [↘] to begin the three-way call.

Using In-call options

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

- **Speaker phone**: turn on the Speakerphone feature or switch back to Normal mode.
- **Mute/Quit**: switch off your phone's microphone, so that the other person cannot hear you.
- **Calls**: access the **Calls** menu. ▶ p. 23
- **Phonebook**: access the **Phonebook** menu. ▶ p. 25
- **Silent/Quit**: mute the DTMF (Dual-Tone Multi-Frequency) tones of the keys. This allows you to press keys without hearing annoying key tones during a call.
- **Send my #**: send your phone number to the calling person or to automated services.
- **DTMF length**: manipulate the audible DTMF tones.

Menu functions

All menu options listed

Calls *(Menu 1)*

Use the **Calls** menu to access call logs, view the duration of calls, and set options for call functions.

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

Missed *(Menu 1.1)*

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

Accessing a call record

1. Select a call.
2. Press [↘] to dial the number, or <**Options**> to access the call record options.

Using call record options

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

- **Talk**: call the caller back.
- **Save**: save the number to Phonebook.
- **Edit**: edit the number to dial or save it.
- **Erase**: erase the call record.

Incoming *(Menu 1.2)*

This menu displays the most recent calls you have received.

Outgoing *(Menu 1.3)*

This menu displays the most recent calls you have dialled.

Air time *(Menu 1.4)*

This menu displays the time log for calls you have made or received. Actual time invoiced by your service provider will vary.

☑ This feature is not intended to be used for billing purposes.

- **Last call**: check the air time of the last call.
- **Total**: check the number of all voice calls and data calls and the total duration of the calls.
- **Life time**: check the number and total duration of all calls since the phone was shipped from the factory.
- **Erase total**: erase the air time measurement except for the life time.

Call forward *(Menu 1.5)*

This network service allows incoming calls to be forwarded to another number.

☑ Contact your service provider to check this service's availability.

To set forwarding options:

1. Select a type of call forwarding.
   - **Immediate**: calls are forwarded immediately when they are received.
   - **When Busy**: calls are forwarded if your line is busy.

- **No Reply/Not Reachable**: calls are forwarded if you don't answer or when your phone is switched off.
- **Disable All**: all of the call forward settings are cancelled.

2. Enter a phone number to which calls are forwarded and press <**Send**>.

Call waiting *(Menu 1.6)*

This network feature alerts you of incoming calls while you are on the phone.

When this feature is enabled, you can respond to an incoming call by pressing [↘] while you are on the phone. This puts the first caller on hold and answers the second call.

Call reject *(Menu 1.7)*

Use this menu to make a list of the phone numbers from which you do not want to accept calls.

1. From the list, scroll to an empty location and press <**Edit**>.

Alternatively, press <**PBook**> to retrieve a number from Phonebook.

2. Enter a phone number.
3. Press <**Save**>.

Airplane Mode *(Menu 1.8)*

Use this menu to set the phone for the use in the airplane except call function.

Select **Enable** to enable Airplane mode by using the Navigation keys, and press **OK** soft key.

To disable this mode, select Disable and press **OK** soft key. press **OK** soft key to reboot your phone.

Phonebook *(Menu 2)*

You can store phone numbers and their corresponding names in your card and the phone's memory. The card and phone's memory, although physically separate, are used as if they were a single entity, called Phonebook.

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

Find *(Menu 2.1)*

Use this menu to find an entry using a person's name, entry's location number, group name, or memory location.

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

Finding an entry

1. Press [Left] or [Right] to select a search method.
2. Enter the first few letters of the name you want or the entry's location number, or select a memory location or a caller group.

3. Scroll to the entry you want.
4. Press [↘] to place a call to the entry's default number, which is the mobile number or the first saved one.

   Alternatively, press <**OK**> to access the entry.

Using Phonebook options

While viewing details of an entry, press <**Options**> to use one of the following options:

- **Talk**: make a call to the number.
- **Edit**: edit entry information for the entry.
- **Copy**: copy the selected number to another memory location.
- **Erase**: erase the entry. If you select a number, only the number is erased.

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

- **Edit**: edit entry information for the entry.
- **Erase**: erase the entry.

- **Add new**: add a new entry to Phonebook. You can create a new entry or add it to an existing entry.

Add *(Menu 2.2)*

Use this menu to add a new entry to Phonebook.

In the phone's memory, a name can contain up to 5 numbers in different categories: Mobile, Home, Office, Pager, and Fax. You can save only a single number with a name in the card's memory.

Adding a new entry

1. Select an information type, **Number**, **E-mail**, or **ETC**.
2. Enter a phone number and press <**Save**>, or an e-mail address or a memo and press <**OK**>.

   ☑ E-mail addresses and memos can be saved only in the phone's memory.

3. Select **New entry**.
4. Enter a name and press <**OK**>.
5. Press <**Phone**>.

6. To save the entry in the card, press <**Card**> and skip to step 8.

   To save the entry in the phone's memory, select a number type.

7. Change the settings or enter more information.
   - **Home**/**Office**/**Mobile**/**Pager**/**Fax**: add a number for each category.
   - **E-mail1**/**2**: press <**Edit**> and enter an e-mail address.
   - **URL**: press <**Edit**> and enter a URL address.
   - **ETC**: press <**Edit**> and add a memo about the entry.
   - **Number type**: change the default number type, if necessary.
   - **Group**: select one of the default relationship groups, where the entry is to be added.
   - **Ringer**: select a unique ringer melody for the entry.

8. When you have finished, press <**Save**> to save the entry.

Adding information to an existing entry

1. Select an information type.
2. Enter a phone number and press <**Save**>, or an e-mail address or a memo and press <**OK**>.
3. Select **Find**. The list of entries stored in the phone's memory is displayed.
4. Select an entry.
5. Select a number type to be added to the existing entry, if you are adding a number.
6. Change the settings or enter more information.
7. When you have finished, press <**Save**> to save the entry.
8. Select **Yes**.

Group settings *(Menu 2.3)*

Use this menu to edit group names.

1. From the group list, select the group you want to edit.
2. Press and hold [**C**] to clear the default name.
3. Enter a name for the group.
4. Press <**OK**> to save the group.

My phone # *(Menu 2.4)*

Use this menu to view and edit your phone number.

To edit your phone number:

1. Press <**Edit**>.
2. Enter your phone number and press <**Save**>.

Memory Status *(Menu 2.5)*

Use this menu to view the total number of entries you can store and the total number of entries you have stored in your Phone Book.

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Message *(Menu 3)*

Use the **Message** menu to send or receive text messages. You can also use the voicemail.

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

New message *(Menu 3.1)*

Use this menu to create text messages and send them to multiple mobile phones.

Note: If your text or e-mail message exceeds the maximum number of characters, the phone will split up to 3 messages.

SMS *(Menu 3.1.1)*

1. Enter the message text and press <**OK**>.
2. Select one of the following saving options:
   • **Save & Send**: save a copy of the message and then sends the message.
   • **Send only**: send the message. The message will be deleted after sending.
   • **Save only**: save the message so that it can be sent later.

3. Enter a phone number.

   To send the message to multiple destinations, press [Down] and enter additional numbers.

4. When you have finished, press <**OK**> to send and/or save the message.

E-mail *(Menu 3.1.2)*

1. Enter the subject of your e-mail and press <**OK**>.

2. Enter the e-mail text and press <**OK**>.

3. Select one of the following saving options:

   • **Save & Send**: save a copy of the message and then sends the message.

   • **Send only**: send the message. The message will be deleted after sending.

   • **Save only**: save the message so that it can be sent later.

4. Enter an e-mail address and press <**OK**>.

   To send the message to multiple destinations, press [Down] and enter additional e-mail address.

5. When you have finished, press <**OK**> to send and/or save the e-mail.

Inbox *(Menu 3.2)*

Use this menu to access messages you have received.

Viewing received text messages

When the phone receives a text message, the phone sounds a message alert and displays a text notification. Press <**Select**> to view the message immediately.

When you access **Phone** or **Card** in the **Inbox** menu, a list of the received messages displays. Press <**View**> to read the message you want.

Icons displayed on the list indicate the messages' status:

• ◈ : Read

• ⬚ : Urgent

Using message options

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

- **Forward**: send the message to other persons.
- **Call/Save**: make a call to the sender's phone number or save the number to Phonebook.
- **Erase**: erase the currently selected message from your Inbox.
- **Copy to Phone**/**Copy to Card**: copy the message to the card or phone's memory.

☑ You can send a reply to the sender by pressing <**Reply**>.

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

- **Erase**: erase the currently selected message.
- **Erase Multi**: erase the messages you select.
- **Erase All**: erase all messages.

Accessing voicemail messages

When you receive a voicemail message, a text notification displays. Press [↘], and the phone dials the voicemail centre. Then follow the voice prompts from the system to listen to the message.

You can also check your voicemails by accessing **Voice mail** in the **Inbox** menu.

Outbox *(Menu 3.3)*

Use this menu to access messages you have sent or failed to send, or saved for later use.

Viewing sent text messages

When you access **Phone** or **Card** in the **Outbox** menu, a list of sent or saved messages appears. Press <**View**> to read the mesages you want. Icons displayed on the list indicate the messages' status:

- 📧 : Sent
- 📧 : Failed to send

Using message options

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

- **Call**/**Save**: make a call to the sender's phone number or save the number to Phonebook.
- **Erase**: erase the currently selected message from your Inbox.
- **Copy to Phone**/**Copy to Card**: move the message to the phone's memory or the card.

☑ You can send the message again by pressing <**Resend**>.

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

- **Erase**: erase the currently selected message.
- **Erase Multi**: erase the selected messages.
- **Erase All**: erase all messages.

Msg settings *(Menu 3.4)*

Use this menu to customise the settings of various options for receiving or sending messages.

- **Scroll timer**: set the time interval in which the phone scrolls to a following screen, 1 through 5 seconds.

  When this option is set to **Off**, you can manually scroll to the next screen using [Up] or [Down].
- **Msg. reminder**: set how often the phone reminds you of new messages.
- **Alert on call**: set whether or not the phone informs you when you receive a new message during a call.
- **New message**: customise the settings for your outgoing messages.

  Priority: set the priority level of messages.

  Delivery ack.: activate or deactivate the delivery acknowledgement feature. When this is activated, the network informs you whether your message is delivered to the recipient or not.
- **Canned msg.**: preset sentences to use when composing a new message.

Memory info *(Menu 3.5)*

This menu displays how many messages are stored in the card and the phone's memory.

SMS Groups *(Menu 3.6)*

Using this menu, you can preset up to 5 SMS groups that you send a message most frequently.

- Press the **Options** soft key to view members, clear or rename the group. You can add members to the group at View Members option. However, the information of the member that is supposed to be added should be saved in the Phone Book.

- Press the **Send** soft key to send the message to the group.

Quick SMS *(Menu 3.7)*

Quick SMS is a way of sending short, simple messages using preset message template that are then delivered immediately to other people.

Creating the buddy list

1. On the Quick SMS screen, select **View Members**.

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2. Select a contact from the Phone Book list.

3. Press <**Select**>. The selected contact is added to the buddy list.

4. To add more contacts, press <**Add New**> and repeat from step 2.

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

- **Erase**: delete the contact from the buddy list.

- **Erase All**: delete all contacts from the buddy list.

Starting your messenger

1. On the Quick SMS screen, select **Setting** → **On**.

2. In Idle mode, press [**CRL**] four times.

   The phone sends a preset message to your predefined recipient.

Customising the preset message

On the Quick SMS screen, select **Edit MSG**.

To edit the preset message, clear the default message. Enter a new message and press <**Save**>.

Email Groups *(Menu 3.8)*

Using this menu, you can preset up to 5 e-mail groups that you send e-mails most frequently.

- Press the **Options** soft key to view members, clear or rename the group. You can add members to the group using the **View Members** option. However, information of the member that is supposed to be added should be saved in the Phone Book.
- Press the **Send** soft key to send the message to the group.

SMS Counter *(Menu 3.9)*

SMS reply *(Menu 3.0)*

Scheduler *(Menu 4)*

The **Scheduler** menu enables you to keep track of monthly or daily schedule and tasks, set an alarm, make a memo, or use the convenient features, such as a calculator, world time clock, and timer.

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

View month *(Menu 4.1)*

Use this menu to view the current month, as well as the past or future months in the calendar format. You can be alerted by the Calendar function before an event commences.

☑ Press [Right] in Idle mode to quickly access this menu.

When you access this menu, today's date is indicated by the red box and the date in lunar calendar reckoning displays at the bottom.

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

- **View**: access the events stored for the selected day.
- **Add new**: add a new event to the selected day.

Scheduling an event

You can schedule up to 9 events for one day and 20 events total.

1. Scroll to a day from the calendar.
2. Press <**Options**> and select **Add new**.
3. Enter your event information and press <**OK**>.
4. Enter the starting time and date on the Start field.
5. Press [Down] and enter the ending time and date on the End field.
6. Press [Down] to move to the alarm setting field.
7. Press [Left] or [Right] to set how long before the event the alarm is to alert you.
   To deactivate the alarm, select **No alarm**.
8. Press <**Save**> to save your event.

Viewing your schedule

Once you have scheduled events, days with scheduled events are indicated by a pink box.

1. Select one of days with scheduled events.
2. Press [Left] or [Right] to scroll to the event you want.
3. Press [Up] or [Down] to view time information for the event.

Using event options

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

- **Add new**: add a new event.
- **Edit**: edit the selected event.
- **Erase**: erase the selected event.
- **Erase all**: erase all of the events in the selected date.

Jump to date *(Menu 4.2)*

Use this menu to enter a specific date and access the date on the calendar.

Alarm set *(Menu 4.3)*

Use this menu to set an alarm to ring at a specific time.

Setting an alarm

1. Select an alarm type, **Once** or **Daily**.
2. Enter the time for the alarm to ring.
3. Press <**Save**> to save the alarm.

Stopping an alarm

- To stop an alarm when it rings, press any key.
- To deactivate an alarm, select **Off** on the Alarm set screen.

Calculator *(Menu 4.4)*

Use this menu to use the phone as a calculator. The calculator provides basic arithmetic functions: addition, subtraction, multiplication, and division.

1. Enter the first number.
   - Use [✳] to enter a decimal point and [#] to change the sign of a number to a negative (-).
2. Press the Navigation keys to access the math function you want.
3. Enter the second number.
4. Press [=] to get the result.

☑ You can reset the calculator by pressing [**C**].

Today *(Menu 4.5)*

Use this menu to schedule new events for the current day, indicating each event's start and end time.

Events scheduled for future dates automatically appear on your Today display for that particular day.

Schedule and access events as you would in the **View month**. ▶ p. 33

To do list *(Menu 4.6)*

Use this menu to enter up a list of tasks you need to do.

Creating a task

1. Enter the task content and press <**OK**>.
2. Press [Left] or [Right] to select a priority for the task and press [Down].
3. Enter the time and date by which your task needs to be done.
4. Press <**Save**> to save the task.

Viewing a task

Press [Left] or [Right] to select the task you want to view.

While viewing a task, press <**Options**> to use the following options:

- **Add new**: add a new task.
- **Edit**: edit the selected task.
- **Erase**: erase the selected task.
- **Erase all**: erase all tasks.

Memo pad *(Menu 4.7)*

Use this menu to make memos of important things you need to remember.

Writing a new memo

1. Enter the memo content.
2. Press <**OK**> to save the memo.

Viewing a memo

Select the memo you want to view from the memo list.

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

- **Add new**: add a new memo.
- **Edit**: edit the selected memo.
- **Erase**: erase the selected memo.
- **Erase all**: erase all memos.

Countdown *(Menu 4.8)*

In this menu, you can set a time and date for a future event and then check to see how many days, hours, and minutes remain before that event. You can also check how much time has passed since a past event.

Creating a countdown timer

1. Enter the event for your countdown timer and press <**OK**>.
2. Enter the time and date from which you want to count down.
3. Press <**Save**> to save the timer.

Viewing a countdown timer

Press [Left] or [Right] to scroll through countdown timers. Each timer displays how may days, hours, minutes remain before the event, or have passed since the event.

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

- **Add new**: create a new timer.
- **Edit**: edit the selected timer.
- **Erase**: erase the selected timer.
- **Erase all**: erase all timers.

World time *(Menu 4.9)*

Use this menu to find out what time it is in another part of the world.

Viewing world time

Press the Navigation keys to scroll to the time zone you want to check.

Applying Daylight Savings Time (DST)

1. Scroll to the time zone to which you want to apply DST, and press <**DST**>.
- Select **Yes**.

Unit converter *(Menu 4.0)*

Use this menu for common conversions, such as length, weight, volume, area and temperature.

Currency converter *(Menu 4.*)*

Use this menu for common conversions, such as currency.

Menu functions

Games *(Menu 5)*

Using the **Games** menu, you can play the basic games.

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

Starting a game

1. Select the game you want.

   The phone displays the following options:

   - **Newgame**: start a new game.
   - **Highscore**: check the high score table.
   - **Instruction**: view information about how to play the game.
   - **Key Info.**: display information about the keys you can use in a game.
   - **Continue**: allows you to continue the last game you played.

2. Select **New Game**.

3. Press any key, except [**C**] and [📞], to start the game..

☑ During a game, press [**C**] to pause or resume the game.

Setup *(Menu 6)*

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

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

Sounds *(Menu 6.1)*

Use this menu to customise various sound settings.

Ringer *(Menu 6.1.1)*

Use this menu to set the ringer for calls, messages, alarms, and scheduler alarms separately.

Ringer vol./Type *(Menu 6.1.2)*

Use this menu to adjust the ringer volume for voice calls, messages, alarms, and scheduler alarms. You can also set the ringer type for voice calls.

- **Level 1**~**5**: select one of the volume levels.
- **Ringer only**: the phone sounds the ringer melody selected in the **Ringer** menu.
- **Silent**: the phone neither vibrates nor rings.
- **1 Beep**: the phone sounds a beep.

- **Vibration**: the phone vibrates.
- **Vib. & Ringer**: the phone vibrates and rings at the same time.
- **Vib. then ringer**: the phone vibrates and then rings.
- **Ringer then vib.**: the phone rings and then vibrates.

Function alert *(Menu 6.1.3)*

Use this menu to set up audible alerts at a specified time to inform you that certain things have happened.

- **Connect**: set the phone to sound a connect tone when your call is connected to the system.
- **Disconnect**: set the phone to sound a disconnect tone when a call is disconnected by the other person.
- **Power on/off**: set the phone to sound an alert when you turn on or off the phone.
- **Exit silent mode**: set the phone to sound an alert when you exit silent mode.
- **Call time alert**: set the phone to sound an alert every minute during a call.

Display *(Menu 6.2)*

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

Animation *(Menu 6.2.1)*

Use this menu to change the background image to be displayed in Idle mode or when the phone is turned on or off.

1. Select the item for which you want to change the image.
   - **Opening**: select an image to be displayed when the phone turns on.
   - **Closing**: select an image to be displayed when the phone turns off.
   - **Wallpaper**: select an image to be displayed in Idle mode.
2. Scroll to the image you want.
3. Press <**Select**>.

Banner *(Menu 6.2.2)*

Use this menu to set a banner message to be displayed at the bottom of the display in Idle mode.

Backlight *(Menu 6.2.3)*

Use this menu to select the length of time the backlight stays on. You can also set the display brightness and the keypad backlight.

- **Main LCD**: select the length of time the backlight stays on.
- **LCD brightness**: adjust the brightness of the display for varying lighting conditions.
- **Keypad**: select the keypad backlight mode setting.

  Save mode: use the backlight only between 18:00 and 8:00. Doing this saves the battery power.

  Normal mode: flash the backlight when you press any key.

Language *(Menu 6.2.4)*

Use this menu to change the language of the display text.

Set time *(Menu 6.2.5)*

Use this menu to set the current time and date or set up the time zones for the Dual Clock wallpaper.

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Main clock

You can set the current time and date. While in a service area, you are not allowed to change the time and date setting since the phone receives time information from the network. Use this menu when you are out of a service area.

Enter the time in 24-hour format and the date in the following order: year, month, and day.

Dual clock

You can choose two time zones to be displayed when you select **Dual clock** for the wallpaper image.

To select time zones for the dual clock:

1. Press [Left] or [Right] to select **Location** on the upper line and press [Down].
2. Press [Left] or [Right] to select the time zone for the left clock and press [Down].
3. Press [Left] or [Right] to select the time zone for the right clock.
4. Press <**Save**>.

To apply Daylight Savings Time:

You can apply daylight savings time to each clock.

1. Press [Left] or [Right] to select **DST** on the upper line.
2. Scroll to the clock to which you want to apply summer time.
3. Press [Left] or [Right] to select **On**.
4. Press <**Save**>.

Contrast *(Menu 6.2.6)*

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

Dialing font *(Menu 6.2.7)*

Use this menu to display numbers in colours when entering a number for dialling.

Service Area *(Menu 6.2.8)*

This menu displays the current service area the user is in. The service area is also displayed for about 1 seconds when your phone is registered onto a network or when you make or receive a call.

Answer mode *(Menu 6.3)*

Use this menu to select how to answer an incoming call.

- **By folder open**: The phone answers when you open the phone. If the phone is already open, press [↘].
- **By send key**: the phone answers only when you press [↘].
- **By any key**: the phone answers when you press any key, except the soft keys and [↗].

Security *(Menu 6.4)*

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

To access the **Security** menu, you must enter the 4- to 8- digit lock code and press <**OK**>. The lock code is preset to **00000000** at the factory.

Phone lock *(Menu 6.4.1)*

Use this menu to lock your phone.

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- **On**: lock the phone. Each time turning on the phone, you need to enter the lock code to use the phone.
- **Off**: deactivate lock mode.
- **Once**: lock the phone just one time. Once the lock code is entered, the phone unlocks.

In Lock mode, you cannot use the phone's menu function and dial numbers, except for making an emergency call.

To unlock the phone:

1. Press <**Unlock**>.
2. Enter the 4- to 8-digit lock code and press <**OK**>.

Change lock *(Menu 6.4.2)*

Use this menu to change your current lock code to a new one. The lock code is preset to **00000000** at the factory.

1. Enter a new 4- to 8-digit lock code and press <**OK**>.
2. Enter the code again and press <**OK**>.

Emergency # *(Menu 6.4.3)*

Your phone provides the option of storing three emergency numbers. All of these numbers can be manually dialed at any time, even if your phone is locked or all outgoing calls are restricted.

Storing an emergency number

1. Select a location.
2. Press [**C**] to clear the existing number.
3. Enter a number and press <**Save**> to save the number.

☑ 119, 110 and 120 will remain as emergency numbers, even if you change them on the emergency number list.

Making an emergency call in Lock mode

Enter one of the programmed emergency numbers and press [↘].

Voice privacy *(Menu 6.4.4)*

Used only in digital networks, Voice Privacy encrypts the voice channel so that people cannot eavesdrop on

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your conversation. Use this menu to enable or disable Voice privacy.

- **Standard**: the phone uses a standard line for calls.
- **Enhanced**: the phone makes and receives calls on an encrypted high security line.

☑ This feature may not be available in all areas. Contact your service provider for details and availability.

Restriction *(Menu 6.4.5)*

Use this menu to restrict the use of your phone.

- **Outgoing**: restrict outgoing calls from your phone, except emergency calls on standard emergency numbers, such as 119, 110 and 120, or the 3 programmed numbers in **Emergency #**.
- **Incoming**: restrict incoming calls.
- **Phonebook**: restrict use of Phonebook.

Clear memory *(Menu 6.4.6)*

Use this menu to clear Phonebook entries or messages stored in the card's memory and phone's memory.

1. Select **Phonebook** or **Messages**.
2. Select the memory location you want to clear.
   To clear both the memories, select **All**.
3. Select **Yes** to confirm the clearing.

Reset phone *(Menu 6.4.7)*

Use this menu to restore the default settings of all user-selectable options, or clear information in the phone's memory.

1. Select a reset option.
   - **Functions only**: restore the default settings of all user-selectable options.
   - **All**: clear all information stored in the phone's memory and restore the default settings of the options.

☑ When you reset your phone using the **All** option, information stored on the UIM card does not reset.

2. Select **Yes** to confirm the reset. The phone reboots, turning itself off and then back on.

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Card setup *(Menu 6.4.8)*

Use this menu to access the security options for the card.

- **PIN check**: activate the PIN check feature. You must enter the PIN assigned to your card each time you switch on the phone.
- **Change PIN**: change the PIN of your card to a new one, provided that the PIN check feature is enabled.
- **UIM lock**: lock your UIM card.

Entry method *(Menu 6.5)*

Use this menu to select the default text input mode.

Quick Menu *(Menu 6.6)*

You can set up a menu of your own using your favorite menu items, which can be accessed by specific number keys.

Setting up the favorite item access

1. Select a location.
2. Scroll to the menu you want and press <**Assign**>.

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Accessing the favorite item

1. In Idle mode, press the number key corresponding to the item you want to access.
2. Press <**Jump**>.

R-world *(Menu 7)*

R-Menu *(Menu 7.1)*

Contents *(Menu 7.2)*

Reset R-Menu *(Menu 7.3)*

UTK Menu *(Menu 7.4)*

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:

"Card is empty insert card"

• Be sure that the card is correctly installed.

"PIN code"

• You are using your phone for the first time. You must enter the PIN supplied with the SIM card.

• The PIN Check feature is enabled. Every time you make a call, the PIN has to be entered. To disable this feature, use the **PIN check** menu.

"No service," "Network failure," or "Not done" displays

• The network connection has been lost. You may be in a weak signal area. Move and try again.

• You are trying to access an option for which you have no subscription with your service provider. Contact the service provider for further details.

You have entered a number but it was not dialled

• Be sure that you have pressed [↘].

• Be sure you have accessed the right cellular network.

• Be sure that you have not restricted outgoing calls.

Your correspondent cannot reach you

• Be sure your phone is switched on. ([⟳] pressed for more than one second.)

• Be sure you are accessing the correct cellular network.

• Be sure that you have not restricted incoming calls.

Solve problems

Your correspondent cannot hear you speaking
- Be sure that you have switched on the microphone.
- Be sure you are holding the phone close enough to your mouth. The microphone is located at the bottom of the phone.

The phone starts beeping and "LOW BATTERY WARNING!" 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 ($\overline{Y}_{\text{ull}}$). The number of bars indicates the signal strength from strong ($\overline{Y}_{\text{ull}}$) to weak ($\overline{Y}$).
- 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 Phonebook entry
- Use the **Find** menu 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

Certification Information (SAR)

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Counsel on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy.

The exposure limit set by the FCC for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate (SAR). The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements.

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 FCC. Tests are performed in positions and locations(e.g. at the ear and worn on the body) as required by the FCC.

The highest SAR values for this model phone as reported to the FCC are Head: 1.21W/Kg, Bodyworn: 0.933W/Kg.

For body worn operations, this model phone has been tested and meets the FCC RF exposure guidelines when used with a Samsung accessory designated for this product or when used with an accessory that contains no metal and that positions the handset a minimum 1.5 cm from the body.

Non-compliance with the above restrictions may result in violation of FCC RF exposure guidelines.

SAR information on this and other model phones can be viewed on-line at www.fcc.gov/oet/fccid. This site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery

pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone. Additional product specific SAR information can also be obtained at www.fcc.gov/cgb/sar.

Consumer Information on Wireless Phones

The U.S. Food and Drug Administration (FDA) has published a series of Questions and Answers for consumers relating to radio frequency (RF) exposure from wireless phones. The FDA publication includes the following information:

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 radio frequency 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.

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 radio frequency 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.

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 radio frequency 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.

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 radio frequency 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 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 phones 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.

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

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directly applicable to human populations, but ten 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.

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 radio frequency 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 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.

What steps can I take to reduce my exposure to radio frequency energy from my wireless phone?

If there is a risk from these products - and at this point we do not know that there is - it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radio frequency 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.

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 radio frequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly

precautionary; it was not based on scientific evidence that any health hazard exists.

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.

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

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

claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

What about wireless phone interference with medical equipment?

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a 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.

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.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

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:

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 additional 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 address book takes 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 people you are talking with aware 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 9-1-1 or other local 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 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 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 other special non-emergency number.

"The wireless industry reminds you to use your phone safely when driving."

For more information, please call 1-888-901-SAFE, or visit our web-site www.wow-com.com

Provided by the Cellular Telecommunications & Internet Association

Operating Environment

Remember to follow any special regulations in force in any area and always switch your phone off 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).

Using Your Phone Near Other 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 your phone off 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 your phone off 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 your phone off in any facility where posted notices require you to do so.

Potentially Explosive Environments

Switch your phone off 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 the phone off 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.

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:

1. If the phone is not on, switch it on.
2. Key in the emergency number for your present location (for example, 911 or other official emergency number). Emergency numbers vary by location.

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.

Restricting Children's access to your Phone

Your phone is not a toy. Children should not be allowed to play with it because they could hurt themselves and others, damage the phone or make calls that increase your phone bill.

FCC Notice and Cautions

FCC Notice

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

The phone may cause TV or radio interference if used in close proximity to receiving equipment. The FCC can require you to stop using the phone if such interference cannot be eliminated.

Vehicles using liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Battery march Park, Quincy, MA 02269, Attn: Publication Sales Division.

Cautions

Changes or modifications made in the radio phone, not expressly approved by Samsung, will void the user's authority to operate the equipment.

Only use approved batteries, antennas and chargers. The use of any unauthorized accessories may be dangerous and void the phone warranty if said accessories cause damage or a defect to the phone.

Although your phone is quite sturdy, it is a complex piece of equipment and can be broken. Avoid dropping, hitting, bending or sitting on it.

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 your phone off before boarding an aircraft. The use of wireless phone in aircraft is illegal and may be dangerous to the aircraft's operation.

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

Product Performance

Getting the Most Out of Your Signal Reception

The quality of each call you make or receive depends on the signal strength in your area. Your phone informs you of the current signal strength by displaying a number of bars next to the signal strength icon. The more bars displayed, the stronger the signal.

If you're inside a building, being near a window may give you better reception.

Understanding the Power Save Feature

If your phone is unable to find a signal after 15 minutes of searching, a Power Save feature is automatically activated. If your phone is active, it periodically rechecks service availability or you can check it yourself by pressing any key.

Anytime the Power Save feature is activated, a message displays on the screen. When a signal is found, your phone returns to standby mode.

Understanding How Your Phone Operates

Your phone is basically a radio transmitter and receiver. When it's turned on, it receives and transmits radio frequency (RF) signals. When you use your phone, the system handling your call controls the power level. This power can range from 0.006 watts to 0.2 watts in digital mode.

Maintaining Your Phone's Peak Performance

For the best care of your phone, only authorized personnel should service your phone and accessories. Faulty service may void the warranty.

There are several simple guidelines to operating your phone properly and maintaining safe, satisfactory service.

- Hold the phone with the antenna raised, fully-extended and over your shoulder.
- Try not to hold, bend or twist the phone's antenna.

- Don't use the phone if the antenna is damaged.
- Speak directly into the phone's receiver.
- Avoid exposing your phone and accessories to rain or liquid spills. If your phone does get wet, immediately turn the power off and remove the battery. If it is inoperable, call Customer Care for service.

Availability of Various Features/Ring Tones

Many services and features are network dependent and may require additional subscription and/or usage charges. Not all features are available for purchase or use in all areas. Downloadable Ring Tones may be available at an additional cost. Other conditions and restrictions may apply. See your service provider for additional information.

Battery Standby and Talk Time

Standby and talk times will vary depending on phone usage patterns and conditions. Battery power

consumption depends on factors such as network configuration, signal strength, operating temperature, features selected, frequency of calls, and voice, data, and other application usage patterns.

Battery Precautions

- 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. In some areas, the disposal of batteries in household or business trash may be prohibited. For safe disposal options for Li-Ion batteries, contact your nearest Samsung authorized service center. Always recycle. Do not dispose of batteries in a fire.

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.

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

• Do not use the phone with a wet hand. 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 the phone. 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.
- When the phone or battery gets wet, the label indicating water damage inside the phone changes color. In this case, phone repairs are no longer guaranteed by the manufacturer's warranty, even if the warranty for your phone has not expired.
- If your phone has a flash or light, do not use it too close to the eyes of people or animals. This may cause damage to their eyes.
- 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.

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U.S Patent No. 4,901,307 5,056,109 5,099,204
                5,101,501 5,103,459 5,107,225
                5,109,390