t619.book Page 1 Friday, July 7, 2006 9:33 AM

* 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

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SAMSUNG

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SGH-t629
User's Guide

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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 refueling

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

Switch off in an aircraft

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

Switch off the phone near all medical equipment

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

Interference

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

Be aware of special regulations

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

Water resistance

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

Sensible use

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

Emergency call

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

Keep your phone away from small children

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

Accessories and batteries

Use only Samsung-approved 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 volumes, 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 22.

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Unpack

Make sure you have each item

Phone

Travel Adapter

Battery

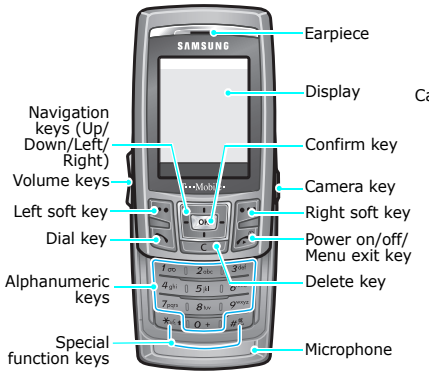
User's Guide

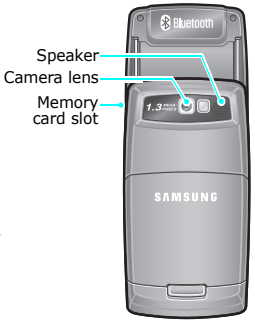
You can obtain various accessories from your local Samsung dealer.

- Standard Battery
- Battery Charger
- Car Charger/Adapter
- Travel Charger/ Adapter
- Extended Battery
- Leather Case
- Data Cable
- Headset
- Portable Hands Free Kit

Your phone

Keys, features, and locations





Get started

First steps to operating your phone

SIM card information

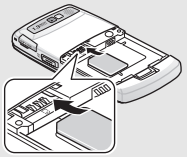
When you subscribe to a cellular network, you receive a plug-in SIM (Subscriber Identity Module) card loaded with your subscription details, such as your PIN, and available optional services.

Install and charge the phone

1 Remove the battery cover.

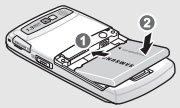
☑ If the phone is already on, first turn it off by pressing and holding .

2 Insert the SIM card.



☑ Make sure that the gold-colored 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 Do not turn on the phone when mobile phone use is prohibited.	1. Open the phone. 2. Press and hold . 3. If necessary, enter the PIN and press **OK**.
Switch off	1. Open the phone. 2. Press and hold .

Keys

	Perform the function indicated on the bottom line of the display.
	In Idle mode, access menu options directly. In Menu mode, scroll through menu options.
	In Idle mode, launch the Wireless Application Protocol (WAP) browser and access t-zones, the website provided by T-Mobile. In Menu mode, select the highlighted menu option or confirm input.
	Send or answers a call. In Idle mode, retrieve numbers recently dialled, missed, or received.
	Delete characters from the display. In Menu mode, return to the previous menu level.
	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 server. Press and hold 0+ to enter an international call prefix.
	Enter special characters. In Idle mode, press and hold # to activate or deactivate Silent mode. Press and hold * to initiate the voice recognition feature. On the dialling screen, 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 backlight.
	In Idle mode, press and hold to turn on the camera. In Camera mode, take a photo or record a video.

Overview of menu functions

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

1 Voice notes

2 Call records

1 All calls
2 Missed calls
3 Incoming calls
4 Outgoing calls
5 Delete all
6 Call time
7 Call costs*

3 t-zones

1 Home
2 Favorites
3 Go to URL
4 Clear cache

4 Instant Messaging

5 Messages

1 Create new
2 Inbox
3 Sentbox
4 Outbox
5 Drafts
6 Templates
7 Voice mail
8 Delete all
9 Settings
0 Broadcast messages
* Memory status

6 Fun & Apps

1 File manager
2 Games
3 Audio player
4 Camera
5 Voice recognition
6 Organizer

7 Get More Help

8 Phonebook

1 Add new contact
2 Contact list
3 Group
4 Speed dial
5 My name card
6 Own number
7 Management

9 Settings

1 Time & Date
2 Phone settings
3 Display settings
4 Sound settings
5 Network services
6 Bluetooth
7 Security
8 Software update
9 Voice recognition settings
0 Reset settings

* Shows only if supported by your SIM card.

Menu functions

All menu options listed

Voice notes

Use this menu to record a voice memo and then send it by a MMS (Multimedia Message Service) message, or immediately save it in the **Voice list** folder.

To access this menu, press **Menu** in Idle mode and select **Voice notes**.

Call records

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

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

All calls

This menu displays the most recent calls dialed, received, or missed.

Missed calls

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

Incoming calls

This menu displays the most recent calls you have received.

Outgoing calls

This menu displays the most recent calls you have dialed.

Delete all

Use this menu to delete all of the records in each call type. You can also delete all call records at one time.

Call time

This menu displays the time log for calls made and received. The actual time invoiced by your service provider will vary. You can also reset all of timers.

Call costs

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

t-zones

The Wireless Application Protocol (WAP) browser on your phone allows you to access the wireless web. Using the WAP browser, 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 **t-zones**.

Home

Using this menu, the web browser on your phone will be launched and you will be connected to t-zones, the website provided by T-Mobile. You can also press OK in Idle mode.

☑ You will be additionally charged for accessing t-zones and downloading media content.

Favorites

Use this menu to store the URL addresses of your favorite websites and quickly access the sites.

Go to URL

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

Clear cache

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

Instant Messaging

Instant messaging is a way of sending short, simple messages that are delivered immediately to users online at that moment.

Before using this feature, you need to subscribe to a messenger service. For further details, contact your service provider.

To access this menu, press **Menu** in Idle mode and select **Instant Messaging**.

Messages

Use the **Messages** menu to send and receive short messages, multimedia messages, and e-mails. You can also use push message, voicemail, and cell broadcast message features.

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

Create new

Use this menu to create a text message (SMS), picture message (MMS). You can also record a voice note and then directly send it as a part of an MMS message.

Inbox

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

Sentbox

This folder stores messages that you have sent.

Outbox

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

Drafts

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

When you select a message, it opens in Edit mode so that you can edit and send the message.

Templates

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

Voice mail

If you are unable to answer a call, the caller will be guided to leave a voice message in your voicemail box, if your service provider supports it.

Use this menu to connect your voicemail server to access received voicemails and store the service number of your voicemail server.

Delete all

Use this menu to delete messages except for e-mails in each message folder all at once. You can also clear all message folders.

Settings

Use this menu to customize the settings for SMS and MMS.

In this menu, you can:

- set the SMS service center number and the destination address.
- specify sending and receiving options for MMS. You can also select a connection profile to be used for MMS.

Broadcast messages

Your phone can receive broadcast messages of various topic, such as sports, traffic, news, or weather forecast, sent by service provider.

In this menu, you can:

- view broadcast messages you have received.
- change the settings for receiving broadcast messages.

- set up a broadcast channel list.
- select languages in which broadcast messages are displayed.

Memory status

Use this menu to check the total amount of memory for storing messages and the amount of memory currently being used in each message box.

Fun & Apps

The **Fun box** menu allows you to access media contents, such as photos, sounds, and games stored in the phone's memory.

To access this menu, press **Menu** in Idle mode and select **Fun & Apps**.

File manager

Use this menu to access images, videos, music files, and sound files stored in the phone's memory or on a memory card.

Games

Use this menu to access the embedded Java games and downloaded Java applications.

When you access **Get More Games** menu, you can directly connect to the game section of t-zones and download a variety of games by your service provider.

Audio player

Use this menu to enjoy music. First, you need to save music files into your phone's memory or on a memory card. You can play MP3, AAC, and M4A files from the phone's memory, and MP3 files from the memory card.

To enjoy high quality music, you can use an optional Bluetooth stereo headset.

☑ Normal headsets are not compatible with the MP3 player.

Camera

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

In this menu, you can:

- take photos and record video clips.
- access and manage the photos you have taken or videos you have recorded.
- send the file to your online photo album or personal journal on t-zones.

Voice recognition

Your phone provides a set of powerful voice-enabled features that enhance its hands-free capabilities.

☑ Your phone recognizes only English, French, German, Italian, and Spanish.

Organizer

Use this menu to use convenient features, such as an alarm clock, a scheduler, calculator, converter, timer, and stopwatch.

In this menu, you can:

- set an alarm to ring at a specific time.
- create new items or tasks and keep track of your schedules.
- perform basic arithmetic functions, such as addition, subtraction, multiplication, and division.
- set your local time zone and find out the current time in another part of the world.
- do common conversions, such as currency and temperature.
- set the period of time for the phone to count down. The phone sounds an alarm when the specified period of time has expired.
- measure elapsed time. The maximum time is 10 hours.

Get More Help

Use this menu to access online help information about how to navigate the wireless web and by your service provider media contents you can get from the website.

To access this menu, press **Menu** in Idle mode and select **Get More Help**.

Phonebook

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

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

Contacts List

Use this menu to search for numbers in Phonebook.

Add New Contact

Use this menu to add a new contact to Phonebook.

Group

Use this menu to organize your contacts in caller groups.

Speed Dial

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

My Name Card

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

Own Number

Use this menu to check your phone numbers, or to assign a name to each of the numbers. Changes made here do not affect the actual subscriber numbers on your SIM card.

Management

Use this menu to manage contacts in Phonebook.

You can:

- select a default memory location to save contacts.
- copy all of the contacts stored on the SIM card to the phone's memory.
- delete all of the contacts from your phone's memory, your SIM card, or FDN list.
- view the number of contacts you have stored in Phonebook.

Service Number

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

Settings

The **Settings** menu provides you with various setting options to customize 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**.

Time & Date

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 time** menu.

Phone settings

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

In this menu, you can:

- select a language for the display text.

- enter the greeting that is displayed briefly when the phone is switched on.
- turn the automatic redialing or answering feature on or off.

Display settings

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

In this menu, you can:

- change the background image that is displayed in Idle mode.
- select a style and color of the font to be displayed in Idle mode.
- select a skin color pattern for Menu mode.
- adjust the brightness of the display for varying lighting conditions.
- select the length of time the backlight and the display stay on.
- select a font size and color for the numbers entered when dialing.
- set the phone to display missed call notifications with the most recently missed caller's information.

Sound settings

Use this menu to customize various sound settings.

In this menu, you can:

- change the sound settings, such as ringtone, ringtone volume, and alert type for incoming calls.
- select the tone that the phone sounds when you press a key.
- change the sound settings for incoming SMS messages, MMS messages, and CB messages individually.
- select the melody that the phone sounds when it is switched on or off.
- select the tone that the phone sounds when you open or close the phone.

- set how the phone acts to alert you to a specific event while in Silent mode.
- customize additional tones for the phone.

Network services

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

You can:

- reroute incoming calls to a phone number that you specify.
- restrict your calls.
- set the phone to inform you when someone is trying to reach you while you are on another call.
- select the network used when roaming outside of your home area.
- prevent your phone number from being displayed on the phone of the person being called.

Bluetooth

Using the Bluetooth feature, 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 meters. 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 don't use the Bluetooth feature while using multimedia features, such as voice recorder, camera, and MP3 player, or vice versa, for better performance.
- Some devices may not be compatible with your phone.

Security

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

In this menu, you can:

- activate the PIN check feature which let the phone prompt you to enter the PIN code each time you turn on the phone.
- change your PIN/PIN2 code or phone password.
- lock your phone.
- lock your media content.
- activate the Fixed Dialing Number (FDN) mode to restrict outgoing calls, except to numbers on the SIM card.

Software update

Use this menu to update the software of your phone.

Voice recognition settings

Use this menu to customize various settings for the voice recognition feature.

Reset settings

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

Solve problems

Help and personal needs

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

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

"Insert SIM"

- Be sure that the SIM card is correctly installed.

"Enter Password"

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

"Enter PIN"

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

"Enter PUK"

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

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

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

You have entered a number but it was not dialed

- Be sure that you have pressed .
- Be sure that you have accessed the right cellular network.
- Be sure that you are not in FDN mode.

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.

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 "Warning. 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 dialed when you re-call a Phonebook entry

- Use the **Contacts list** 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 exposure limit established by the FCC. Tests for each model phone 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: 0.814 W/Kg, Body-worn: 0.699 W/Kg.

For body worn operation, this model phone has been tested and meets the FCC RF exposure guidelines whenused 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 of 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, A3LSGHT629. 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 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.
3. Press .

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.

☑ •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

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°Øs 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.