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





SPH-W4200 User's Guide



Important safety precautions



Failure to comply with the following precautionsmaybedangerousorillegal.

Copyright information

Bluetooth?isaregisteredtrademarkof the Bluetooth SIG, Inc. worldwide. JavaTM is a trademark or registered trademark of Sun Microsystems, Inc. Picsel and Picsel ViewerTM are trademarksofPicselTechnologies,Inc.

Drive safely at all times

Donotuseahand-heldphonewhiledriving.Parkyour 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

Wirelessphonescancauseinterference. Using themin 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 when ever 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

Useonlyinthenormal position (held to your ear). Avoid unnecessary contact with the antenna when the phone is switched on

Emergency calls

Keyintheemergencynumberforyourpresentlocation, then press 1.

Keep your phone away from small children

Keepthephoneandallitsparts, including accessories, out of the reach of small children.

Accessories and batteries

UseonlySamsung-approvedbatteriesandaccessories, such as headsets and PC data cables. Use of any unauthorisedaccessories coulddamage 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.



Atveryhighvolumes, prolonged listening to a headset can damage your hearing.

Qualified service

Onlyqualifiedservicepersonnelmayrepairyourphone. Formoredetailedsafetyinformation, see "Health and safety information" on page 20.

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Unpack

Make sure you have each item

- Phone
- Adapter
- Stereo headset
- Battery
- · Battery travel holder
- User's manual



SuitableAdapterorCharger,certifiedaccording to the relevants a fety standard, will be provided for each country in use.

You can obtain the following accessories for your phone from your local Samsung dealer.

- Multi adapter
- Travel charger
- · Car charger
- PC data cable
- · Portable battery kit
- Portable PC data cable
- Music controller
- Bluetooth mono/ stereop headset kit

Get started

first steps to operate your phone

Install and charge the phone

- 1 Install the battery:
 - To remove the battery, slide the battery catch toward the top of the phone and hold it.
- 2 Plug the adapter into the phone.
- 3 Plug the adapter into a standard AC wall outlet.
- 4 Whenthephoneiscompletelycharged(thebattery iconstops blinking), unplug the adapter from the power outlet.
- 5 Remove the adapter from the phone.

Low battery indicator

When the battery is low:

- · a warning tone sounds,
- · the battery low message displays, and

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

Power on or off

Power or

Do not turn on the phone when mobile phone use is prohibited.

- 1 Open the phone.
- 2 Press and hold [7] to turn on the phone.
- 3 If necessary, enter the PIN and press [확인].

Power on

- 1 Open the phone.
- 2 Press and hold [6].

Keys and display

ł		
	Softkeys	Performthe function indicated on the bottom line of the display.
1	Navigation keys	In Standby mode, access menu options directly. In Menu mode, scroll through the menu options.
	확인 key	In Idle mode, enters Menu mode. In Menu mode, selects the highlighted menu option.
4	key	Sends or answers a call. InStandbymode,retrievesthelast numberdialed,missed,orreceived.

Overview of menu functions

Key(s)	
취소 key	Deletescharactersfromthedisplay. In Menu mode, returns to the previous menu level.
∕ key	Ends a call. Hold down to switch the phone on and off. In Menumode, cancels input and returns the phone to Idle mode.
Numeric keys	Enternumbers, letters, and some special characters.
*/# key	Enter special characters. Use for some special functions.

Key(s)	Description
Volume keys (on the left)	Adjusts the phone volume. InStandbymode, with the phone open, adjusts the master volume. With the phone closed, hold down to turn on the display. InMenumode, scrolls through the menu options.
Camera key	In Standby mode, with the phone open, turns on the camera. With the phone closed, hold down to turn on the camera. In Capture mode, takes a photo.

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- # Reset

All menu options listed

SHOW

The **SHOW** menu provides you with network services supported by KTF. For further details about KTF services, contact KTF.

Help Desk

UsethismenutoaccesstheHelpDeskwebsite.Youcan checkoutyourcallcharges, the time log for your calls, payback point, and other useful information.

Call Service

Usethis menutoregister to various services provided by Good Time KTF, or cancel any existing accounts. For further details about KTF services, contact KTF.

Member's Card

Use this menu to enter the SHOW Members website. You can register for a mobile card or check out details of your card use.

Event

UsethismenutoaccesstheSHOWEventwebsite.You can checkvarious event information and access the website you want directly.

Internet

Use this menuto access the SHOW website. You can download various items and use services provided by the website

Video

UsethismenutoaccesstheSHOWVideowebsite. You canlistentostreamingmusic, or playmusic or video files downloaded from the site.

Pop-up

UsethismenutosetanInternetserviceaccessibleon yourldlemodescreen,ortoaccesstheMagicNPop-up web site to download pop-up services.

Press [新春] in Idle mode to access downloaded MagicNPop-upservices. Depending on your phone, the key you need to press can be different.

Display

The **Display**menuallowsyoutocustomize the settings for the phone's displays and lights.

Wall Paper

Use this menu to customize the idle screen or backgroundimagesforvarioussituations on the phone.

Main Menu Style

Usethismenutoselectadisplaystyleofthemainmenu screen displayed when you press in Idle mode.

Font Type/Size

Usethismenutoselectthefonttypeorsizeforthetext on the display.

Dial Number Style

Usethismenutoselectthesize, color, or effect for digits to be displayed when you enter a phone number for dialing.

Lighting

Usethismenutocustomizethelightingforthedisplay.

Sounds

The **Sounds** menuallows you to customize sounds for certain events or situations on the phone.

Ring Tone Settings

Usethismenutoselectacallalerttypeoraringtoneto alert you to incoming calls.

Alert Tones

Usethismenutocustomizevarioustonestoalertyouto various situations on the phone.

Key Tones/Others

Usethismenutocustomizethekeypadtonesandtones you can hear while operating the phone.

Volume

Use this menu to adjust the volume level of various phone sounds, such as the call ringtone, message ringtone, wake-up calls, and so on.

Hourly Chime

Use this menu to set the phone to sound an alert tone every hour on the hour. You can set the period of time for which the hourly alert will be used.

Messages

The **Messages** menuallowsyoutocompose and send a text or multimedia message, and view incoming or outgoing messages and emails.

Send Message

UsethismenutocomposeandsendatextorMultimail message.

Inbox

Usethismenutoviewormanagereceivedmessages. SelectInternetInboxtoaccessthereceivedmessages stored on the online message server.



InternetInboxisanonlinemessageboxprovided by KTF that stores messages you have received.

Outbox

Use this menutovieworm an age sent messages, draft message, or queued messages. Select Internet Outbox to access sent messages stored on the online message server.



Internet Outbox is an online message box providedby KTF that stores message syou have sent.

Emoticons

Use this menu to send a message by using preset emoticons, or add new emoticons.

Message log

Usethismenutoaccesslogsaboutthemessagesyou have sent or received and the total number of the messages.

Spam block/report

Use this menu to set the phone to block SPAM messages, and set phone numbers or text that you want to block.

Exciting Anycall

The Exciting Any call menual lows you to access various entertaining and convenient functions.

MyPet

Use this menu to adopt your own a cyber dog. Help themgrowup by feeding and playing just as you would do in real life. You can also train your dog.

Camera

Usethismenutotakeaphotoorrecordavideo, anduse various camera-related funtions.

- •Capture: allows you to take a photo or record a video.
- AnycallAlbum, ExternalMemoryAlbum: allowsyou to view photos and videos or manage them.
- PhotoStudio:allowsyoutoeditordecoratephotos, and edit videos by using video capturing.
- PhotoPrint: allowsyoutoprintphotosbyconnecting to the phone to a compatible printer via Bluetooth or USB.

 Photo/Movie Upload: allows you to upload photos or videos to MagicN Album or Portal Community websites. For further details, contact KTF.

MP3

Use this menu to listen to music or manage music albums.

VOD

Use this menu to play videos downloaded from the Fimm service.

File Viewer

Use this menu to open images(jpg or bmp) or documents(Word, Excel, PowerPoint, PDF, Text, HTML, etc.) on the phone's memory, without corrupting files.

Bluetooth

Use this menu to access the Bluetooth wireless technologytoconnectawirelesslycompatiblemobile phone, headset, PC, and photo printer within the availablerange. Youmustpairthedevicewiththephone to connect them each other via Bluetooth

- Bluetoothmode:allowsyoutoactivateordeactivate
 Bluetooth
- Bluetooth Connect: allows you to check the paired devices or connect one of them with the phone.
- Disconnect: allows you to check the details of the connected device or disconnect the device from the phone.

Entertainment

Use this menu to access various entertaining and convenient functions, as well as play games.

Voice Funtions

Use this menu to access voice-related functions.

- VoiceCommand:allowsyoutoexecutefunctionsby verbalizing commands.
- Voice Command is only supported in Korean.
- TTS: allows you to set the phone to audibly read text.
- VoiceMemo:allowsyoutorecordandmanagevoice memos.

PC Connect

Use this menu to connect the phone to a PC.

- Removable Disk: allows you to connect the phone to a PC with a PC data cable and use the phone as an external USB memory disk to transfer data between the phone and a PC.
- PCManager: allows you to use multimedia items and functions provided from Anycall Land.

- AnycallMusic:allowsyoutousemusicitemsprovided from Anycall Land.
- AnyPC:AnyPC, aremotecomputingprogram, enables youtocontrolaWindows-basedhostPCortransfer files between the host PC and guest PC. Once you haveinstalledtheAnyPCprogramtoeachPC, youcan convenientlyworkwiththehostPCfromanyotherPC specified as a guest.

Anycall Land Files

Usethismenutoaccessandmanagefilesdownloaded from Anycall Land.

Anycall SOS

This menu allows you to activate the SOS message feature, which allows you to send an SOS message to registered phone numbers to ask for help in an emergency.

Phonebook

The **Phonebook** menuallow syoutostoreyour contacts' personal information and manage them efficiently.

Search

Use this menu to search for a phone number by enteringakeyword, such as an ame, aphone number, or an email address

Add To Phonebook

Use this menu to save phone numbers and contact information.

Groups

Use this menuto organize your contacts by grouping them based on specific categories.

Call Log

Usethismenutocheckthetimelengthofthecallsyou have made or received.

Sel Save Memory

Use this menu to select your memory to save phone numbers and contact information.

Copy All

UsethismenutocopyyourcontactsbetweenUSIMand phone memory.

My Number

Use this menu to edit your phone information.

Organizer

The **Organizer** menu allows you to manage your schedule, tasks, or memos, and other convenient functions helpful for your daily life.

Wake-up call/Alarms

Use this menu to set a wake-up call to wake you up in the morning or multiple alarms to sound at specific times.

Scheduler

Usethismenutoorganizeandcheckyourdaily, weekly, or monthly schedule.

School Timetable

Use this menu to set up a timetable of your class schedule

Memo

Usethismenutomakeandmanagememosforthings that are important to you.

Calculator

Use this menutouse the phone as a calculator for the four arithmetical operations.

English Dictionary

Use this menu to search for Korean words or English words, createyour ownwordbook, or enjoy a word quiz.

Translator

Use this menu to make a translation into English, Japanese and Chainese.

▼ Translator is only supported in Korean.

Subway Show

Use this menu to check the subway map of the major cities in Korea.

Subway Show is only supported in Korean.

Unit Converter

Usethismenutoperformconversionsforunits, such as length or currency.

World Clock

Use this menuto check the current time in other parts of the world

Stopwatch

Use this menu to measure interval of elapsed time.

Contents Box

The **Contents Box** menuallows you to access various multimedia items from other sources, as well as embedded items.

Melodies

Usethismenutoaccessandmanageringtonesstoredin the phone's memory.

Images

Usethismenutoviewandmanageimagesstoredinthe phone's memory.

Photos/Movies

Use this menu to view photos or videos in Anycall Album or photos decorated on your online photo album

MP3

UsethismenutoaccessandmanageMP3storedinthe phone's memory.

Mulitipack

Use this menu to access the Multipack website to download multimedial tems, or access it emsyou have downloaded from the website

Eimm

Usethismenutoaccessandmanagemultimediaitems downloaded from the Fimm service.

Attached Files

Use this menu to access and manage files you have saved from Multimail messages to the phone's memory.

Anycall Land

Usethismenutoaccessandmanagefilesdownloaded from Anycall Land.

Memory

Use this menu to check the amount of memory currently being used in each menu. You can also format a memory card.

Settings

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

Call Settings

Use this menuto set up various options for making or receiving calls.

- Receive/End Settings: allows you to select how to answerorend acall. Video Call Settings: allows you to select how to video call.
- VideocallSettings:allowsyoutoselecthowtovideo call.
- Call Reject: allows you to set the phone to block a call or select how to reject a call.
- Region/InternationalCodeSettings:allowsyoutoset region code and international code.
- Flight Mode: allows you to make the phone's all functions requiring network connections disabled, or set the current time and date.

· Network Settings: allows you to set network.

Application Settings

Usethismenutocustomizethesettingsforthedisplay, sounds, camera, messages, or Bluetooth.

Password/Lock

Use this menuto set the phone's password or lock the phone.

언어 선택/Language

Use this menu to change the display language.

Anvcall Help

Use this menu to view help information about how to use the phone's major functions.

Reset

Use this menu to reset all of the phone's settings to their factory default, or clear memory. You can reset the phone's settings by functions you want separately.

Solve problems

Help and personal needs

Tosavethetimeandexpenseofanunnecessaryservice 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 USIM card"
- · Be sure that the USIM card is correctly installed.
- "Phone locked Enter password"
- Theautomaticlockingfunctionhasbeenenabled. You mustenter the phone's password before you can use the phone.
- "Enter PIN1"
- You are using your phone for the first time. You must enter the PIN1 supplied with the USIM card.
- The PIN1 Check feature is enabled. Every time the phone is switched on, the PIN1 has to be entered. To disable this feature, use the PIN check menu.

"Enter PUK"

The PIN1 code has been entered in correctly three times in succession, and the phone is now blocked. Enter the PUK1 supplied by your service provider.

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

- Thenetworkconnectionhasbeenlost. Youmaybeina weak signal area. Move and try again.
- Youaretryingtoaccessanoptionforwhichyouhave nosubscriptionwithyourserviceprovider. Contact the service provider for further details.

You have entered a number but it was not dialled

- Be sure that you have pressed [~].
- $\bullet Besure you have accessed the right cellular network.\\$
- Besurethatyouhavenotsetanoutgoingcallbarring option.

Your correspondent cannot reach you

- Besureyourphoneisswitchedon.(] pressedfor more than one second.)
- $\bullet Besure you are accessing the correct cellular network.\\$

Besurethatyouhavenotsetanoutgoingcallbarring option.

Your correspondent cannot hear you speaking

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

The phone starts beeping and "LOW BATTERY" flashes on the display

• Yourbattery is insufficiently charged. Recharge the battery.

The audio quality of the call is poor

Check the signal strength indicator on the display

(\(\mathbb{T}_{\pi\pi\pi}\)). The number of bars indicates the signal strength from strong (\(\mathbb{T}_{\pi\pi\pi}\)) to weak (\(\mathbb{T}_{\pi}\)).

 Try moving the phone slightly or moving closer to a window if you are in a building. No number is dialled when you re-call a Contacts entry

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

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

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

ThencontactyourlocaldealerorSamsungafter-sales service.

ExposuretoRadioFrequency(RF)Signals

Certification Information (SAR)

Yourwirelessphoneisaradiotransmitterandreceiver. It is designed and manufactured not to exceed the exposurelimitsforradiofrequency(RF) energy setby theFederalCommunicationsCommission(FCC) of the U.S. government. TheseFCCexposurelimitsarederived fromtherecommendationsoftwoexpertorganizations, the National Counsel on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). Inboth cases, the recommendations were developed by scientific and engineering experts drawnfromindustry, 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 wattsperkilogram (W/kg). The FCC

requires wireless phones to comply with a safety limit of 1.6 wattsperkilogram (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 testedfrequencybands. Althoughthe 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 GSM 1900 Head: 0.527 W/Kg, Body: 0.594 W/Kg.

Forbodywornoperations, thismodelphone has been test de and meets the FCC exposure guidelines when used with a Samsung accessory designated for this productor when used with an access roy that contains no metal and that positons the hand set a minimum 1.5 cm from the body.

Non-compliancewiththeaboverestrictionsmayresultin violation of FCC RF exposure guidelines.

SARinformationonthisandothermodelphonescanbe viewedon-lineatwww.fcc.gov/oet/fccid.Thissiteuses the phone FCC ID number A3LSPHW4200.

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 its hould provide values for typical or maximum SAR for a particular phone. Additional product specific SAR information can also be obtained a twww. 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 consumersrelating toradio frequency (RF) exposure fromwirelessphones. 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 wirelessphoneswithbuilt-inantennas, oftencalled "cell," "mobile," or "PCS" phones. Thesetypesofwirelessphones can expose the user to measurable radio frequency energy (RF) because of the short distance between thephoneandtheuser' shead. These RF exposures are limited by Federal Communications Commissions afety 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 aperson's RF

exposuredecreasesrapidlywithincreasingdistancefrom thesource. 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 scompliance limits.

Do wireless phones pose a health hazard?

The available scientific evidence does not show that anyhealth problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emitlowlevels 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. Whereashigh 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.

WhatisFDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emittingconsumerproductssuchaswireless phonesbeforetheycanbesold, asitdoeswithnewdrugs ormedicaldevices. However, the agency has authority to take action if wireless phones are shown to emitradio frequency energy (RF) at a level that is hazard ous to the user. In suchacase, 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:

 "Supportneededresearchintopossiblebiologicaleffects of RF of the type emitted by wireless phones;

- "Designwireless phones in away that minimizes any RF exposure to the user that is not necessary for device function; and
- "Cooperateinprovidingusersofwirelessphoneswith 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:

- "NationalInstituteforOccupationalSafetyandHealth
- "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 phoneswiththe Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCCs afety 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 thousand softimes 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.

Whataretheresults of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their researchmethods. Animal experiments investigating the effects of radio frequency energy (RF) exposures characteristicofwirelessphoneshaveyieldedconflicting results that often cannot be repeated in other laboratories. Afewanimal studies, however, have suggested that low levelsofRFcouldacceleratethedevelopmentofcancer inlaboratorvanimals. However, many of the studies that showedincreasedtumordevelopmentusedanimals that had been genetically engineered or treated with cancer-causingchemicalssoastobepre-disposedto developcancerinabsenceofRFexposure.Otherstudies 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 withcertaintywhattheresultsofsuchstudiesmeanfor human health

Threelargeepidemiologystudieshavebeenpublished 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, tumor softhebrain or salivary gland, leukemia, or other cancers. No ne of the studies demonstrated the existence of any harmful health effects from wireless phones RF exposures. However, no ne 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?

Acombination 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 effectif 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

answersaboutsomehealtheffects, suchascancer. 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 exposured uring 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? FDAisworkingwiththeU.S.NationalToxicologyProgram 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).

FDAhas been aleading participant in the World Health Organization international Electromagnetic Fields (EMF) Projects inceits 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)haveaformalCooperativeResearch andDevelopmentAgreement(CRADA)todoresearch onwirelessphonesafety. FDAprovidesthescientlific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research isconducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wirelessphone 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 simplesteps 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

•"If you must conduct extended conversations by wirelessphoneeveryday, 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 head set and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.

phone will reduce RF exposure.

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?

Thescientificevidencedoesnotshowadangertousers of wirelessphones, 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 wirelessphone use and increasing the distance between the user and the RF source will reduce RF exposure.

Somegroupssponsoredbyothernational 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 are commendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other illeffects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientifice vidence that any health hazard exists.

Dohands-freekitsforwirelessphonesreducerisks 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 reducer isks. 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 waistor 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 meets a fety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

Dowirelessphone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to BE 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 claimtoshieldtheuserfromRFabsorptionusespecial phone cases, while others involve nothing more than a metallicaccessorvattachedtothephone.Studieshave 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 phonemaybeforcedtoboostitspowertocompensate. leading to an increase in RF absorption. In February 2002.theFederaltradeCommission(FTC)chargedtwo companies that sold devices that claimed to protect wirelessphoneusersfromradiationwithmakingfalse and unsubstantiated claims. According to FTC, these defendantslackedareasonablebasistosubstantiate their claim.

What about wireless phone interference with medical equipment?

Radiofrequencyenergy(RF)fromwirelessphonescan interact with some electronic devices. For this reason, FDAhelpeddevelopadetailedtestmethodtomeasure electromagneticinterference(EMI)ofimplantedcardiac pacemakers and defibrillators from wireless telephones. Thistestmethodisnowpartofastandardsponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA.medicaldevicemanufacturers.andmanyother groups, was completed in late 2000. This standard will allowmanufacturerstoensurethatcardiacpacemakers and defibrillators are safe from wireless phone EMI. FDA has tested wireless phones and helped develop a voluntary standard sponsored by the Institute of ElectricalandElectronicEngineers(IEEE).Thisstandard specifiestestmethodsandperformancerequirementsfor hearingaidsandwirelessphonessothatnointerference occurswhenapersonusesacompatiblephoneanda compatiblehearingaidatthesametime. This standard was approved by the IEEE in 2000.

FDAcontinues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference befound 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
- NationalinstituteforOccupationalSafetyandHealth (NIOSH): http://www.cdc.gov/niosh/emfpg.html
- WorldhealthOrganization(WHO):http://www.who.int/peh-emf/

- InternationalCommissiononNon-lonizingRadiation Protection: http://www.icnirp.de
- NationalRadiationProtectionBoard(UK):http://www.nrpb.org.uk
- Updated4/3/2002:USfoodandDrugAdministration http://www.fda.gov/cellphones

Road Safety

Your wireless phone gives you the powerful ability to communicate byvoice, 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:

- Get to knowyour 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.
- Whenavailable, useahands-freedevice. If possible, addanadditional layer of convenience and safety to your wireless phone with one of the many hands free accessories available today.
- Positionyourwirelessphonewithineasyreach. Be abletoaccessyourwirelessphonewithoutremoving youreyesfromtheroad. If you get an incoming call at an inconvenient time, let your voice mail answer it for you.
- 4 Letthepersonyouarespeakingwithknowyouare driving:ifnecessary,suspendthecallinheavytraffic orhazardousweatherconditions. Rain, sleet, snow, ice and even heavy traffic can be hazardous.
- 5 Donottakenotesorlookupphonenumberswhile driving.Jottingdowna"todo"listorflippingthrough youraddressbooktakesattentionawayfromyour primary responsibility, driving safely.

- 6 Dialsensiblyandassessthetraffic; if possible, place callswhenyouarenot moving or before pulling into traffic. Trytoplancallswhenyour carwill be stationary. If you need to make a call while moving, dial only a fewnumbers, check the road and your mirrors, then continue.
- 7 Donotengageinstressfuloremotionalconversations thatmaybe distracting. Makepeopleyou are talking withawareyou are driving and suspend conversations that have the potential to divertyour attention from the road.
- 8 Useyourwirelessphonetocallforhelp. Dial9-1-1 orotherlocalemergencynumberinthecase of fire, trafficaccidentormedicalemergencies. Remember, it is a free call on your wireless phone!
- 9 Useyourwirelessphonetohelpothersinemergencies. Ifyouseeanautoaccident, crimeinprogressorother seriousemergencywherelivesareindanger, call9– 1–1 orotherlocalemergencynumber, asyouwould want others to do for you.

10 Callroadsideassistanceoraspecialnon-emergency wirelessassistancenumberwhennecessary. Ifyou seeabroken-downvehicleposingnoserioushazard, abrokentraficsignal, aminortraficaccidentwhere nooneappearsinjured, oravehicleyouknowtobe stolen, callroadsideassistanceorotherspecialnonemergency number.

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

Formoreinformation,pleasecall1-888-901-SAFE,orvisit our web-site www.wow-com.com

Provided by the Cellular Telecommunications & Internet Association

Operating Environment

Remembertofollowanyspecialregulations inforcein any area and always switch your phone of f 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 in compatible 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 earwith the antenna pointing over your shoulder).

Using Your Phone Near Other Flectronic Devices

Most modern electronic equipment is shielded from radiofrequency(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

Pacemakermanufacturers 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 independentresearchandrecommendationsofWireless TechnologyResearch.lfyouhaveanyreasontosuspect thatinterference is taking place, switch of fyour phone immediately.

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.
- •shouldusetheearoppositethepacemakertominimize potential interference.

Ifyou 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

Ifyou 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. Switchyourphoneoffinhealthcarefacilities when any regulations posted in these areas instructyou to doso. Hospitals or health carefacilities may be using equipment that could be sensitive to external RF energy.

RFsignalsmayaffectimproperlyinstalledorinadequately shieldedelectronicsystemsinmotorvehicles. Checkwith the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Vehicles

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Posted Facilities

Switchyourphoneoffinanyfacilitywherepostednotices require you to do so.

Statics Devices

Whencameraisinoperation, Yourphoneshouldnotbe near devices that produces static field.

Potentially Explosive Environments

Switchyourphoneoffwheninanyareawithapotentially explosiveatmosphereandobeyallsignsandinstructions. 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.

Areaswithapotentially explosive atmosphere are often but not always clearly marked. They include the areas below decks on boats, chemical transfer or storage facilities, vehicles using lique fied 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 (medicalemergencies, for example).

Remember, tomake or receive any calls the phone must be switched on and in a service area with adequate signals trength. Emergency calls may not be possible on all wireless phonenetworks 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(forexample,911orotherofficialemergency number). Emergency numbers vary by location.
- **3** Press [].

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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 then ecessary 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

Yourphoneisnotatoy. Childrenshould 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) thisdevicemustacceptanyinterferencereceived, 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, f 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:

- Reorientorrelocatethereceivingantenna. Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit differentfromthattowhichthereceiverisconnected.
- Consult the dealer or an experienced radio/TV technician for help.

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

Vehiclesusingliquefiedpetroleumgas(suchaspropane orbutane) mustcomplywiththe National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Battery march Park, Quincy, MA02269, Attn: Publication Sales Division

Cautions

Changesormodificationsmadeintheradiophone, not expressly approved by Samsung, will void the user's authority to operate the equipment.

Onlyuseapprovedbatteries, 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.

Althoughyourphoneisquitesturdy, 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 avehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.
- Checkregularlythatallwirelessphoneequipmentin your vehicle is mounted and operating properly.
- Do not store or carry flammable liquids, gases or 36

explosive materials in the same compartment as the phone, its parts or accessories.

- Forvehicles 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 in jury could result.
- Switchoffyourphonebeforeboardinganaircraft.lt isdangerous and illegal to use wireless phones in an aircraft because they can interfere with the operation of the aircraft
- 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

Thequality of each cally our make or received epends 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.

Ifyou'reinsideabuilding,beingnearawindowmaygive you better reception.

Understanding the Power Save Feature

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

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

Maintaining Your Phone's Peak Performance

Forthebestcareofyourphone, 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.

- Holdthephonewiththeantennaraised, fully-extended and over your shoulder.
- $\bullet \, \mathsf{Try} \, \mathsf{not} \, \mathsf{to} \, \mathsf{hold}, \, \mathsf{bend} \, \mathsf{or} \, \mathsf{twist} \, \mathsf{the} \, \mathsf{phone's} \, \mathsf{antenna}.$
- Don't use the phone if the antenna is damaged.
- Speak directly into the phone's receiver.
- Avoidexposingyourphoneandaccessoriestorainor liquidspills.lfyourphonedoesgetwet,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 andmayrequireadditional subscription and/or usage charges. Notalifeatures are available for purchase or use in all areas. Download able 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 phoneusage patterns and conditions. Battery power consumption depends on factors such as network configuration, signals trength, operating temperature, features selected, frequency of calls, and voice, data, and other application usage patterns.

Battery Precautions

- Neveruseanychargerorbatterythatisdamagedinany wav.
- Use the battery only for its intended purpose.
- Ifyouuse 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.
- Batterychargingtimedependsontheremainingbattery chargeandthetypeofbatteryandchargerused. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and stand by time) is noticeably shorter than normal. it is time to buy a new battery.
- Ifleftunused, afullychargedbatterywilldischargeitself 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

powersource. Donot leave the battery connected to a charger formore than a week, since overcharging may shorten its life.

- Extremetemperatures will affect the charging capacity of your battery: it may require cooling or warming first.
- Donotleavethebatteryinhotorcoldplaces, suchasin acarinsummerorwinterconditions, asyouwillreduce the capacity and lifetime of the battery. Always try to keep the battery atroom temperature. Aphone with ahot 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 canoccurwhenametallicobject (coin, clip orpen) causes a direct connection between the + and -terminals of the battery (metal strips on the battery), for example when you carry aspare 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. Insome areas, the disposal of batteries in

household or business trash may be prohibited. For safedisposal options for Li-lon 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 allowyout oen joy this product for many years.

- Keep your phone and all its parts and accessories out of the reach of small children and pets. They may accidentally damage these things or choke on small parts.
- Keepthephonedry.Precipitation,humidityandliquids containmineralsthatwillcorrodeelectroniccircuits.
- Donotuse the phone with a wethand. Doing so may cause an electric shock to you or damage to the phone.
- Donotuseorstorethephoneindusty, dirtyareas, asits moving parts may be damaged.
- Donotstorethephoneinhotareas. Hightemperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

- Donotstorethephoneincoldareas. 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.
- Donotdrop, knockorshakethephone, Roughhandling can break internal circuit boards.
- Donotuseharshchemicals, cleaningsolventsorstrong detergentstocleanthephone. Wipeitwith asoft cloth slightly dampenedin amildsoap – and – watersolution.
- Do not paint the phone. Paint can clog the device's moving parts and prevent proper operation.
- Donotputthephoneinoronheatingdevices, suchas amicrowaveoven, astoveoraradiator. Thephonemay explode when overheated.
- When the phone or battery gets wet, the labelindicating 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.

- Ifyourphonehasaflashorlight, donotuseittooclose totheeyesofpeopleoranimals. This may caused a mage to their eyes.
- Use only the supplied or an approved replacement antenna. Unauthorized antenna sormodified 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 the rewill assistyou, and if necessary, arrange for service.

Precautions when using batteries

- Neveruse a charger or battery that is damaged in any way.
- Use the battery only for its intended purpose.
- Ifyouusethephonenearthenetwork's basestation, it uses less power. Talk and stand by time are greatly affected by the signal strengthon the cellular network and the parameters set by the service provider.
- Batterychargingtimedependsontheremainingbattery charge, the type of battery, and the charger used. The battery can be charged and discharged hundreds of times, but it will gradually we arout. When the operation time is noticeably shorter than normal, it is time to buy a new battery.
- Ifleftunused, afully charged battery will discharge itself over time.
- UseonlySamsung-approvedbatteries, andrecharge yourbatteryonlywithSamsung-approved chargers.
 Disconnectthecharger fromthepowersourcewhenit is not in use. Do not leave the battery connected to a chargerformorethan aweek, sinceovercharging may shorten its life.

- Extremetemperatureswill affect the charging capacity of your battery: it may require cooling or warming first.
- Donotleavethebatteryinhotorcoldplacesbecause thecapacityandlifetimeofthebatterywillbereduced. Trytokeepthebatteryatroomtemperature. Aphone with a hot or cold battery may not work temporarily, evenwhenthebatteryisfullycharged. Li-ionbatteries areparticularlyaffectedbytemperaturesbelow0°C(32°E).
- Do not short—circuit the battery. Accidental short—circuiting canoccurwhenametallicobjectlike acoin, clip or pen causes a direct connection between the + and terminals of the battery (metal strips on the battery). For example, do not carry aspare battery in apocket or bagwhere the battery may contact metal objects. Short—circuiting the short—circuiting.

 The contact of the battery or the object causing the short—circuiting.
- Dispose of used batteries in accordance with local regulations. Always recycle. Donot dispose of batteries in a fire