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A p p e n d i x

● Precautions ●

Fully charge your battery before using the unit for the first time.



Do not hold the antenna when the phone is in use. Holding the antenna affects call quality.



Do not disassemble or modify the unit.



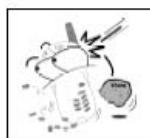
Do not use solvents such as benzine or thinner to clean the unit.



Keep metallic objects such as necklaces, clip and coins away from battery terminals.



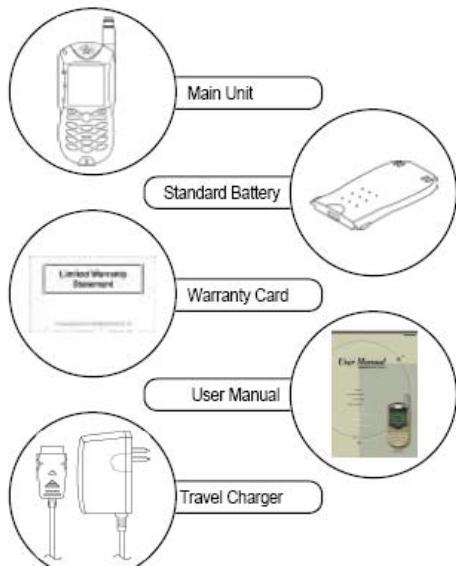
Do not expose the unit to rain or liquids, irreparable damage may occur.



Do not expose the unit to excessive vibration or cause shock to the unit as serious damage may occur.

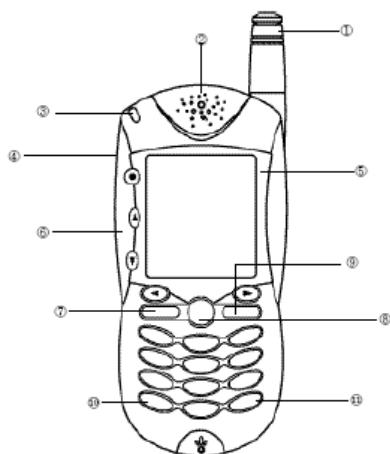
• Checking supplied accessories •

We thank you for purchase of this phone, before using, please make sure the following accessories are packaged with your device.

**• Icons •**

	Shows the current signal strength.
	Indicates the phone is outside of the service area.
	Flashes when a call is initiated and turns to steady when connection is made.
	Indicates the vibrate feature is activated.
	Indicates the alarm is set.
	Indicates a new message or messages have been received.
	Indicates the phone is roaming.
	Indicates the remaining battery life.

● Identifying the parts of the phone ●

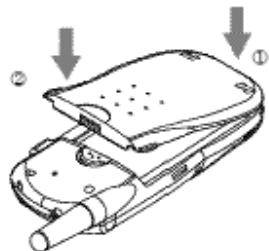


①	Antenna
②	Speaker
③	LED
④	Headset Jack
⑤	LCD
⑥	Will enter characters during messaging function
⑦	Will scroll up and down through available functions when you are in a feature menu. Will adjust volume during a call.
⑧	Will display [MENU] or [SEARCH]. It will be enter the menu or search to phone book system. Will [OK] and select displayed menu heading. Will also [SAVE] and confirm functions
⑨	Will show call list, and press again to answer a call or select the desired one.
⑩	To erase displayed characters or numbers. Will take you back one level in menu.
⑪	To turn the unit on or off. To end a call. To reject a call when calls are incoming.
⑫	To turn the vibrate mode on and off. To activate this function press and hold the key. To disable this function press and hold the key.
⑬	To activate or disable lock function. To activate this function press and hold the key. To disable this function press and enter your unlock code.

Getting Started

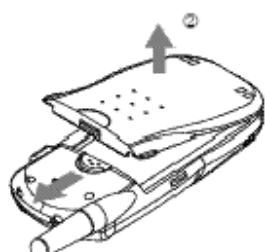
● Installing, removing and charging the battery●

Installing the battery pack



① Place the battery pack on the groove at the bottom of the phone.
② Slide it in the direction of the arrow until it snaps into place.

Removing the battery pack



① Slide up the battery latch.
② Remove the battery pack in the direction of the arrow.



- ① Connect the charger to the accessory port of your phone.
(The arrow side of the charger should be pointing at your keypad).
- ② Plug charger into a 220V or 110V wall outlet.
- ③ If the Red LED is lit on the charger that means that your phone is in the process of charging.
- ④ If the Green LED is lit on the charger your phone is fully charged and ready for use.
- ⑤ When your phone is ready to be recharged, it will begin to beep and the battery status icon will flash empty.

Battery Charge Level

The battery charge level is shown at the top right of the LCD screen.



When the battery charge level becomes low, the low battery sensor alerts you in three ways : sounding an audible tone, blinking the battery icon, and displaying LOWBATTERYWARNING! If the battery charge level becomes exceedingly low, the phone automatically switches off and any function in progress is not saved.

● Receiving a Call ●

When you receive a call your phone will either:

- Ring
- Vibrate (if vibrate mode)
- Vibrate + Ring
- Lamp

Key Functions

- Press any key will answer the call whether or not the phone is locked.
- When calls are incoming, you can press  to reject.

● Making a Call ●

Sending a Call

- To call a number, your phone must be turned on, be unlocked, and have a network connection with adequate signal strength.
① Dial the phone number up to digits.

If you make a mistake, press  to delete the last digit, or press and hold  to clear all digits.

② Press 

Speed Dialing

- The speed dial feature lets you dial any phone book entry with a minimal number of key presses.
- The number of the stored in your phone, will located from 001 to 200
- And the numbers of the stored in your card, will located from 201 to 280

One-touch Dial

Memory locations 001 through 009 are special one-touch locations. You can dial the phone numbers stored in the phone book memory from 001 through 009 simply by pressing one button. Press and hold the third digit of the memory location containing the number to be dialed.

(For example : Location no.001 press  and hold.)

Two-touch Dial

Memory location 010 through 099 are special two-touch locations. Press the second digit briefly then hold down the third digit of the memory location.
(For example : Location no.012 press  briefly and hold down .)

Three-touch Dial

Memory location 100 through 200 are special three-touch locations. Press the first and the second digit briefly, then hold down the third digit of the memory location.
(For example : Location no.123 press  and  briefly, then hold down .)

● Ending a Call

- Press **END** to end a call.

● Menu While Call is in Process

Sending my phone number

- When you are in the process of making a call you can send your phone number. This feature is a quick and easy way to leave your phone number on a pager or voice mail system.

During a call ► [MENU] ► ① Send Own #
[OK]

- "Sending number..." will be displayed.
- You can also send a number that has not been previously stored. (like a credit card or account number)

Notes

- The notes feature functions as a scratch pad. You can use this feature to make records of phone numbers that are given to you during the course of a conversation.
- The numbers you store while a call is in progress will be saved in your call log.

During a call ► [MEMO] ► Enter the number ► [SAVE] ► Number stored in Call log

Voice Volume

- Adjusts the earpiece volume during a call.

During a call ► Use the up&down key to adjust the volume.

- Up Key : Increases the volume.
- Down Key : Decreases the volume.

Mute

- Temporarily prevents the other party on the phone from hearing you.
- The mute feature is automatically disengaged when you end the call.

During a call ► [MENU] ► ② MUTE ► To activate the mute feature
[OK]

- When you are ready to resume conversation with the other party, repeat the above steps.

● Missed Calls / Auto Redial ●

Missed Calls

- If you miss calls, the number of missed calls are displayed with time and date information.
(The displayed time is for the last unanswered incoming call.)
- Press [OK] to clear the display.
- If the caller allows his or her number to be transmitted, the missed call is automatically stored in the call log.

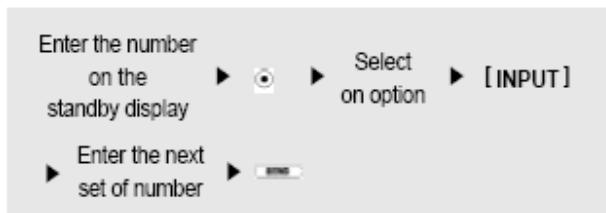
Automatic Redial

- If the network is busy, your phone displays the message "Call failed".
- With automatic redial, your phone repeats the call attempt.
- When the call goes through, your phone rings once and then connects the call automatically.
- You can change redial intervals.
Look 7. Setup for 1. Auto Redial feature.

● Pause Dialing ●

Sending a number with pause dialing

- You can store a phone number with pauses, which is handy in case the ARS (Auto Response System) instructs you to enter several strings of numbers.
- ARS is used for credit card calling or automatic banking.
- Enter the desired phone number and press  key located among the side keys on your phone.



▶ 'Select SEND', and the ARS will proceed to the next step.

- After , only phone numbers are transmitted.
- Make a call and enter a number following the voice instructions of ARS.

There are three ways you can set a pause with pause dialing :

① Manual Pause  : Numbers are sent only when [NUMBER] is pressed.
② Time Pause  : The phone pauses for 2 seconds before sending the next set of numbers.
③ Hyphen  : A hyphen(-) is inserted when selected.

- ▶ Manual pause() : Listen to the voice instructions and press [NUMBER] to dial the next string of numbers.
- ▶ Timed pause() : The next string is automatically dialed after 2 seconds.

● Shortcut Keys ●

Vibrate Mode

- With a press of a button you can set the phone to vibrate mode.
- This is useful when you want to know you have an incoming call but you do not want to disturb the people around you.
- Press and hold the  key to set your phone to vibrate mode.
- To deactivate the vibrate mode press and hold the  key again.
-  is displayed when the phone is in vibrate mode.

Lock Mode

- This feature prevents anyone else from using your phone.
- You may lock the phone with the shortcut key, or through the feature menu.
- To lock the phone, press and hold  until the phone displays "Locked! Emergency calls only".

Advanced Features

Advanced Features

1. Calls

Outgoing/Incoming/Missed calls/Call Timer

2. Phone Book

Find Entry/Add Entry/ Edit Group

3. PIM (Personal Information Manager)

View Schedule / Add Schedule / Alarm / World Time

4. Ring

Ring Type / Ring Volume / Ring Tone

5. Sounds

Call Volume / Key Pad Tones / 1 Minute Beep / No Service

6. Display

Backlight / Standby / Banner / Language / Version / Contrast

7. Setup

Auto Redial / Auto Answer / Auto Hyphen / Area Code Rules

8. Security

Lock / Lock Code / Restrict / Clear Memory / Emergency# / Reset Phone.

9. Data Service

SIM Mode / Incoming Mode

10. SMS

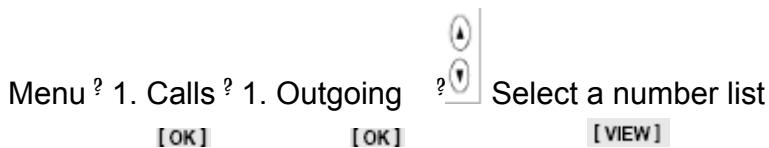
SMS Inbox / SMS Outbox / SMS Setup

1. Calls

- View and dial the outgoing or incoming numbers.
- Delete the numbers in the Call log memory.
- View a list of calls you did not answer.
- View call duration.

---- Outgoing -----

- The last 20 dialed numbers are displayed.
- You can delete individual numbers from the outgoing call list.



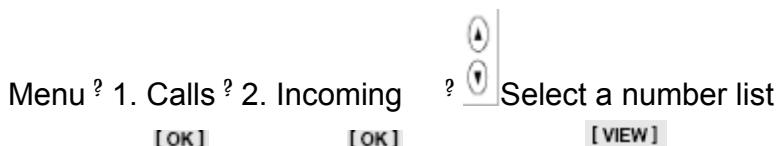
Each number in your outgoing call list will have one of the below icons
Next to it depending on what type of call was made or if you were just making a note.



- ? You can select a phone number from the displayed list and delete or store it in the phone book.
- ? To place a call to the selected number, press 
- ? To delete a number from the outgoing call list:
 - Follow above steps.
 - Highlight number you wish to delete.
 - Choose the view option.
 - Select delete.
 - Choose next.
- ? To save a number from the outgoing call list:
 - Follow above steps.
 - Highlight number you wish to save.
 - Choose the view option.
 - Select save.
 - Phone will prompt you to save the number as either home, office, mobile and other, select an option.
 - You may then edit accordingly a name of category to each saved entry.
 - Phone then asks if you want to make the number private, choose yes or no to save number.

---- Incoming -----

- The last 20 incoming calls are displayed in sequence.
- You can delete individual numbers.



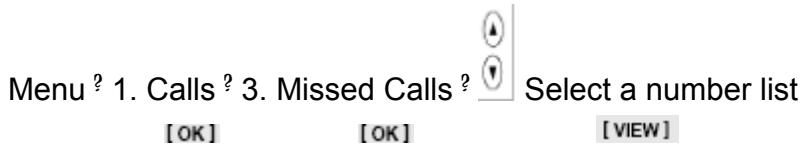
Each number in your incoming call list will have one of the below icons next to it.

 incoming call,  call waiting

- ? Follow the same steps as listed delete numbers from the outgoing call list.
- ? You can also save numbers from the incoming call list by entering your incoming call menu and following the same steps as listed to save numbers from the outgoing call list.
- ? To place a call to the selected number, press 

---- Missed Calls -----

- The last 20 missed calls are displayed.



Each number in your missed call list will have one of the below icons next to it.

 missed calls

- ? Follow the same steps as listed delete numbers from the outgoing call list.
- ? You can also save numbers from the Missed call list by entering your Missed Calls menu and following the same steps as listed to save numbers from the outgoing call list.
- ? To place a call to the selected number, press 

---- Call Timers -----

- This menu displays the duration of your last call, outgoing calls and the total duration of all of your incoming and outgoing calls.



Menu ? 1. Calls ? 4. Call Timers ?  Select an option

[OK]

[OK]

[OK]

Last Call

- Displays the duration of your last call made.

Select 4. Call Timer ►  Last Call
[OK]

Outgoing Calls

- Displays the total duration of all outgoing calls since you last reset timer.
- Selecting [DELETE] resets the duration to '0'.

Select 4. Call Timer ►  Outgoing
[OK]

Total Calls

- Displays a running total of all of your incoming and outgoing call minutes since you last reset timer.
- Selecting [DELETE] resets the duration to '0'.

Select 4. Call Timer ►  Total
[OK]

2 Phone Book

- This menu is designed to store and retrieve phone numbers.
- You can categorize each stored contact as family, friend, work or any of three user defined category choices.
- You can store up to 200 contacts in your phone book.
- The icons used in your phone book are as follows.

 Name	 Home number
 Office number	 Mobile number
 Other number	 E-mail address
 Category Name (Group None / Family / Friend / Office / Other) Grouping	

● Find Entry ●

- This feature allows you to find the entry in the phone book by name, location, number or group.

Menu ? 2. Phone Book ? 1. Find Entry ?  Select an option

[OK]

[OK]

[OK]

1 Name : to recall by name.
2 Location : to recall by memory location.
3 Number : to recall by phone number
4 Group : to recall by group(You can find items in your phone only)

Name

- This function is to recall by name.

 Name

Select 1.Find Entry ?  ? Enter the desired name and press ? [view]

[OK]

[OK]

?  [DELETE] The selected items is deleted.

?  [EDIT] The selected items is edited.

- ▶ All names that contain the characters that you entered will appear on your display.
- ▶ To go to the entry mode, pressing the [VIEW] key after the items are displayed.
- ▶ See '2. Add Entry' in '1.Phone Book' for operation after the entry mode.
- ▶ See page ?? (메뉴얼작성후 삽입) for entering characters.

Location

- This function is to recall by memory location.

 Location

Select 1.Find Entry ?  ? Enter the desired location and press ? [view]

[OK]

[OK]

?  [DELETE] The selected items is deleted.

?  [EDIT] The selected items is edited.

- ▶ The following operation is same as that for "1 Name".

Number

- This function is to recall phone book entry by stored number.

③ Number

Select 1.Find Entry ? [OK] ? Enter the desired number and press ? [view]

[OK]

[OK]

► [DELETE] The selected items is deleted.

► [EDIT] The selected items is edited

- If you press [OK] without pressing numbers, all the numbers stored in the 'Phone Book' will be displayed.
- All phone numbers that contain the numbers you entered will appear on display.
- If you stored more than two numbers in the same location and press **WPS** key, the phone number you selected as principal will be displayed and dialed.
- If you have stored a number as private you will have to enter your unlock code before you will be able to view or delete that number.

Group

- This function is to recall phone book entry by category.
- Will be display the "You can find items in your phone only"

④ Group

Select 1.Find Entry ? [OK] ? Enter the desired group and press ? [view]

[OK]

[OK]

► [DELETE] The selected items is deleted.

► [EDIT] The selected items is edited

- This function will bring up a list of each person you have stored in the selected category (for example if you select your friend category it will show you all your contacts that you have designated as friends).
- You will then be able to choose the contact you were looking for in the category.

● Add Entry ●

- This function is to store a new phone number.

Menu ? 2. Phone book ?2. Add Entry ? Enter the name and and press

[OK]

[OK]

[save]

► [EDIT] Go to entry mode.

?  Select an item ?

► [SAVE] It is stored in the Phone Book.

 Name	 Home number
 Office number	 Mobile number
 Other number	 E - mail address
 Category Name (Group None / Family / Friend / Office / Other) Grouping	

- ▶ You can scroll up or down to select what type of number you are adding. (home, office, etc.)
- ▶ You can store up to four item's phone number and one e-mail address for each contact point.
- ▶ Enter each item and press [OK] to store.
- ▶ Before you fully store each contact the phone will prompt you whether or not you want to make that contact private. If you want to hide the phone number as private, select "YES". The phone will not display it without entering your unlock code.
- ▶ See page ?? (메뉴얼 완성후 삽입) for additional information on entering characters.
- ▶ If you store multiple numbers at the same location, you will be prompted to assign a label to one of the numbers (this is how you make the number a principal).
To make number principal :
 - Select [SAVE]
 - Phone will prompt "ASSIGN LEVEL?"
 - Select "YES"
 - Choose which icon you wish to make your principal number (home, office, etc)
 - Select [OK]
When you view this contact again the icon next to your principal number will have changed to 
- ▶ If the number is stored in your phone book already, it will show you "Message to Stored number already."

● Edit Group ●

- This feature enables you to add, correct and delete Group, and customize a ring tone for each Group
- You can categorize all of your contacts using the Group feature.
- You can distinguish incoming calls by Group with the ring tone setup for each Group.



Menu ? 2. Phone Book ? 3. Edit Group ? Select an option

[OK]

[OK]

[OK]

New Group

- You have four preset groups and three customizable groups that you can categorize your contacts.
- If you try to create a new group once you already have 3 groups created you will get an error message stating "Can not add any more". If you receive this error message you may choose to change one of your previously customized group names.

 New Group

Select 3. Edit Group ? [OK]

Change Group

- This feature lets you rename the existing group.
- The group is stored with a new name in the 'Phone Book'.

2 Change Group
Select 3. Edit Group ? [OK]

- ▶ Choose which group you would like to rename.
- ▶ Type in new name.
- ▶ Select [SAVE] and press [OK].

Delete Group

- You can delete a group name.
- Delete Group does not delete the information stored in the 'Phone Book' but only deletes the name of the selected group, which leaves the applicable information 'group[undefined]'.

3 Delete Group
Select 3. Edit Group ? [OK]

Group Ring

- Group Ring enables you to designate a ring tone per Group, and to distinguish incoming calls by Group.

4 Group Ring
Select 3. Edit Group ? [OK] ? Select a Group ? Choose a ring tone.
[OK] [OK]

- ▶ Group Ring will be played when the incoming call number is saved in your Phone Book.
- ▶ You can choose Group Ring from the 20 ring tones.
- ▶ You can only setup a ring tone for a Group. Duplicate ring tone is not allowed.
- ▶ Selecting NO for Group Ring Setup, the global ring tone setting will be applied.

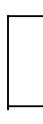
3 PIM (Personal Information Manager)

- You can enter up to 32 characters for subject.
- Your information manager will hold up to 50 entries.

● View Schedule ●

- When you select View Schedule, your phone displays a calendar for the month with that day's date highlighted.
- You can edit, or delete entries from your View Schedule feature.
- You can set a time, alarm and category for each event.

Menu ? 3. PIM ? 1. View Schedule ? After Select the required date, press
[OK] [OK] [select]

?  Select an item ?
[VIEW]  [DELETE] Deletes the selected item.
 [VIEW] The day's schedule is displayed.

- ▶ To edit the selected item, press the [EDIT] key and correct the time and details.
See '2. Add Schedule' on page 32 for operation.
- ▶ For further details on how to enter characters, refer to page ??(메뉴얼 완성후 page 삽입).



- Once you create a calendar event the phone will display how many events are stored and how many events you can still enter.

● Add Schedule ●

- Entries are categorized as either schedule and anniversary.

Menu ? 3. PIM ? 2. Add Schedule ? After Select the required date ?

[OK]

[OK]

[select]



Select the type ? Setup time and press [TEXT] ? Input the message for details.

[OK]

[SAVE]

► After inputting the message for details, you can set reminder alarm. The [NEXT] key toggles the reminder alarm yes and no.

- After selecting [AM] or [PM], enter the desired time.
- Using the you can go to next, and last year
- Using the you can go to next, and last month

● Alarm ●

- You can set a one time alarm or a daily alarm.

Menu ? 3. PIM

? 3. Alarm

?

Select an option

[OK]

[OK]

[OK]

Morning Call

- This feature allows you to set Morning Call for One time, Monday through Friday, or Everyday.

Select 3. Alarm ?

?

Select an item ? [OK] It is stored in the schedule.

[OK]

[OK]

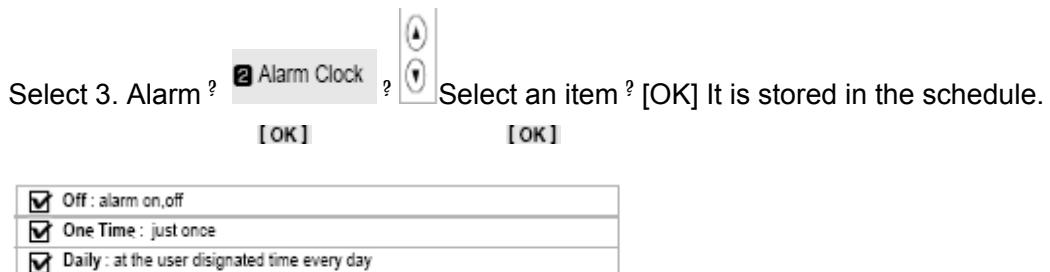
<input checked="" type="checkbox"/> Off : alarm on/off	<input checked="" type="checkbox"/> One Time : just once
<input checked="" type="checkbox"/> Mon-Fri : Weekday only	<input checked="" type="checkbox"/> Daily : at the user designated time every day

► Time Setting : Press the Key to choose between [AM] and [PM] and enter the time using numeric keys and press [SAVE].

- Preset time can be changed by pressing [EDIT].
- Once you activate an Alarm the icon will appear on the top line of your display in standby mode

Alarm Clock

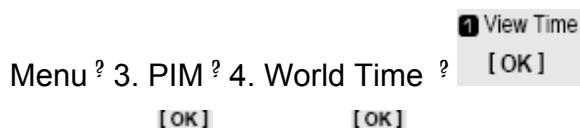
- You can set an alarm for once or daily.



—● World Time ●————

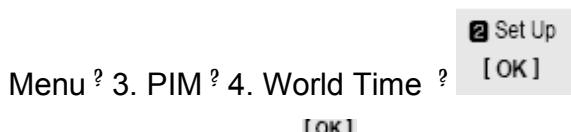
- This feature allows you to check the time around the world.
- It shows local time for 41 major cities throughout the world.
- Once you set your current location your phone will display that location as your local time zone.

View Time



► When the cities appear, press [NEXT] and select the desired city to display the time.

Set Up



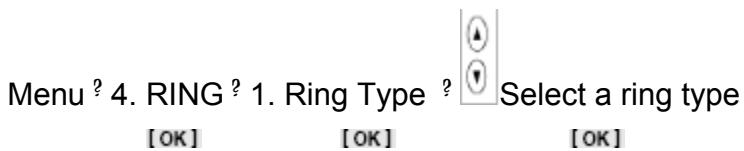
► After selecting your current local area, press [OK].

4. Ring

- You can set ring type, ring volume, and ring tone.
- You can select from 20 different ring tones.

—● Ring Type ●—

- You can select from Ring, Vibrate, Silent Mode (where your display's backlight flashes on and off when you receive an incoming call) or Ring / Vib and Lamp.



—● Ring Volume ●—

- Adjusts the volume of your phone's ringer.



▶ There are four levels.

—● Ring Tone ●—

- You can choose the ring your phone uses to alert you to incoming calls.



▶ There are 5 standard tones and 15 melodies.

5. Sounds

- You can adjust your speaker volume.
- You can also adjust your sound related features such as 1minute beep.

—● Call Volume ●—

- Adjusts the speaker volume, which effects how you hear the person you are talking to.



Menu ? 5. SOUNDS ? 1. Call Volume ? Adjust the volume

[OK]

[OK]

[OK]

▶ There are four levels.

—● Key Pad Tones ●—

- Adjusts the volume of your key pad tones.



Menu ? 5. SOUNDS ? 2. Key Pad Tones ? Adjust the volume

[OK]

[OK]

[OK]

▶ There are five levels.

—● 1 Minute Beep ●—

- A beep will sound once a minute while a call is in progress.

Menu ? 5. SOUNDS ? 3. 1 Minute Beep

[OK]

[OK]

▶ The [NEXT] key toggles yes and no.

—● No Service ●—

- This tone alerts in you are out of service area.
- And then, it will be alerts in you are in the service area again.

Menu ? 5. SOUNDS ? 4. No Service

[OK]

[OK]

▶ The [NEXT] key toggles yes and no.

6. Display

- You can personalize your display settings.

—• Backlight •—

- The feature allows you to set the backlight of the LCD and the keypad to go on for use in the dark.



Menu ? 6. DISPLAY ? 1. Backlight ?

[OK]

[OK]

[OK]

<input checked="" type="checkbox"/> Always Off : The backlight is always off.
<input checked="" type="checkbox"/> 10 Seconds : Goes off in 10 seconds.
<input checked="" type="checkbox"/> Auto : Off in the daytime and On at night. (PM17:00 ~ AM 06:00)
<input checked="" type="checkbox"/> Always On : The backlight is always on.

—• Standby •—

- You can make a personal banner or choose to have one of three preloaded pictures appear on your display while your phone is in standby mode.



Menu ? 6. DISPLAY ? 2. Standby ?

[OK]

[OK]

[OK]

<input checked="" type="checkbox"/> Banner Mode : Displays a banner text, date, and time.
<input checked="" type="checkbox"/> Picture Mode : Displays a picture from 3 pictures.
<input checked="" type="checkbox"/> Analog Watch : Displays analog watch.

—• Banner •—

- You can have your name or other words displayed while your phone is in standby mode.
- You can enter up to 16 characters including letters and numbers.



Menu ? 6. DISPLAY ? 3. Banner ?

[OK]

[OK]

[OK]

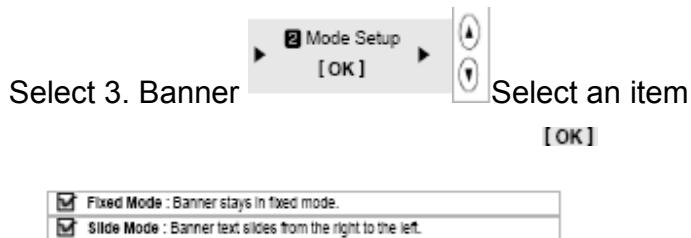
Banner Edit

- You can edit banner text for standby mode display.



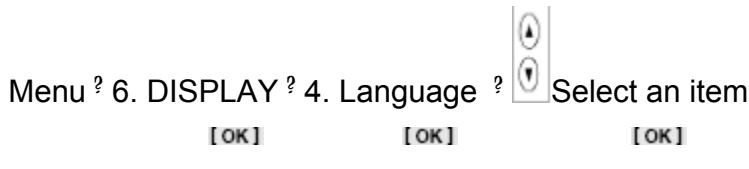
Mode Setup

- This feature allows you to set the text banner display mode from fixed or sliding type.



—● Language ●—

- Select a language.
- You will have a choice of English or Spanish.
- Once you select a language and designate it as main, everything on the display will be changed to the language.



—● Version ●—

- This feature shows the software version of your phone.

Menu ? 6. DISPLAY ? 5. Version

[OK] [OK]

● Contrast ●

- You can adjust contrast of the LCD screen up to 30 levels, by  or  and the default setting is Level 15.



Menu ? 6. DISPLAY ? 6. Contrast ?  Select a level

[OK]

[OK]

[OK]

6. Setup

- You can customize functionality of your phone with this Setup menu.

● Auto Redial ●

- This feature will automatically redial the last number attempted if network problems cause your call not to be completed.
- This auto redial feature can be set to wait either, 10 seconds, 20 seconds or 30 seconds before re-attempting your call.



Menu ? 7. Setup ? 1. Auto Redial ?  Select an item

[OK]

[OK]

[OK]

<input checked="" type="checkbox"/> Off	<input checked="" type="checkbox"/> After 10 sec
<input checked="" type="checkbox"/> After 20 sec	<input checked="" type="checkbox"/> After 30 sec

► Your phone comes with the 'Auto Redial' function disabled.

● Auto Answer ●

- For hands free operation you can set your phone to automatically receive calls after a preset amount of time.
- You can choose 5 seconds, 10 seconds or 20 seconds to elapse before your call is answered.



Menu ? 7. Setup ? 2. Auto Answer ?  Select an item

[OK]

[OK]

[OK]

<input checked="" type="checkbox"/> Off	<input checked="" type="checkbox"/> After 5 sec
<input checked="" type="checkbox"/> After 10 sec	<input checked="" type="checkbox"/> After 20 sec

► Your phone comes with the 'Auto Answer' function disabled.

→● Auto Hyphen ●

- You can use this feature to automatically insert hyphens(-) when you enter phone numbers.

Menu ? 7. Setup ? 3. Auto Hyphen

[OK]

[OK]

► The [next] key toggles yes and no.

→● Area Code Rules ●

- This option allows you to choose either seven digit dialing (for areas that require you to enter an area code with each number dialed), or seven digit dialing.
- You can also ask the phone to automatically send an area code with each number dialed as long as that number is in the same area code for which the phone is programmed.

Menu ? 7. Setup ? 4. Area Code Rules

[OK]

[OK]

► The [next] key toggles yes and no.

When Area Code Rules are set to on

- ★ To call a phone in the area of which the codes are stored
 - Enter the phone number without the area code.
- ★ To call a phone in other area
 - Enter the area code and the phone number.

8. Security

- This feature allows you to lock your phone to prevent it from being used without your knowledge.
- You will have to enter a four digit code to access your security options.
- The factory default is "0000".

→● Lock ●

- This feature prevents the unauthorized use of your phone.
- Once this feature is activated your phone will remain lock even if you power it off and on.
- You can select to have your phone never locked, lock on power up, or lock now (which instantly locks your phone)

Menu ? 8. SECURITY ? Enter lock code ? 1. Lock ?  Select an item
[OK] **** [OK] [OK]

► Your phone comes with the lock function disabled.

<input checked="" type="checkbox"/> Never	<input type="checkbox"/> On power up	<input type="checkbox"/> Now
---	--------------------------------------	------------------------------

—● Lock Code ●—

- This feature allows you to change your lock code.
- The factory default is "0000".
- If you forget your lock code, contact your local service center.

Menu ? 8. SECURITY ? Enter Lock Code ? 2. Lock Code ? Enter New Code ?
[OK] **** [OK] ****

Enter a new code and press ? Re-enter New Code ? Re-enter a new code and press
[OK] [OK]

► The phone will prompt you to enter the new lock code twice.

—● Restrict ●—

- This feature allows you to restrict access to certain features and functions of your phone.

Menu ? 8. SECURITY ? Enter Lock Code ? 3. Restrict ?  Select an item
[OK] **** [OK] [OK]

<input checked="" type="checkbox"/> Phone Book : You can restrict access to the Phone Book.
<input type="checkbox"/> Incoming : It enables you to restrict incoming calls.
<input type="checkbox"/> Outgoing : It enables you to restrict outgoing calls.

► The [NEXT] key toggles yes and no.

—● Clear Memory ●—

- Will delete all information stored in your Call Logs, Phone Book or PIM(Personal Information Manager) .
- Use caution before using this feature, once you delete this information you cannot restore it.
- If you are only trying to erase one phone number this is not the feature you want to use.



Menu ? 8. SECURITY ? Enter Lock Code ? 4. Clear Memory ? **Select an item**
[OK] **** [OK] [OK]

► The [NEXT] key toggles yes and no.

1 Call Logs : You can clear your call logs.

2 Phone Book : You can clear your Phone Book.

3 PIM : You can clear your PIM.

—● Emergency # ●—

- It allows you to store up to three emergency numbers which can be dialed even when the phone is locked or restricted.

Menu ? 8. Security ? Enter Lock Code ? 5. Emergency #
[OK] **** [OK]

? ─► Select an option, press [EDIT]

? ─► Enter an emergency number and press [OK]

► To dial emergency numbers in lock mode : enter the emergency number, then press **OK** key.

—● Reset Phone ●—

- This feature takes the phone back to its factory default settings.
- Use caution before exercising this feature, once executed all your information will be gone and not be restorable.

Menu ? 8. SECURITY ? Enter Lock Code ? 6. Reset Phone
[OK] **** [OK]

► The [NEXT] key toggles yes and no.

► Reset Phone will clear all of Call Logs, Phone Book, and PIM (Personal Information Manager) data.

9. Data Service

- You can set up the environment for data services such as the Internet, online services, and fax.

—● SIO Mode ●—

- Selects the speed of connection between a PC and your phone.
- The speed of communication between your phone and a PC has nothing to do with the speed of the Internet, online services, and Fax.



Menu ? 9. Setup ? 1. SIO Mode ? Select an item

[OK]

[OK]

[OK]

<input checked="" type="checkbox"/> Packet Data : 19,200 bps
<input checked="" type="checkbox"/> Modem / Fax : 19,200 bps

—● Incoming Mode ●—

- Determines how calls are answered when your phone is attached to a PC.
- You must select modem or fax for incoming calls, you do not have to select a mode for outgoing calls.
- If either modem or fax is selected, you will not be able to answer normal voice calls.



Menu ? 9. Setup ? 2. Incoming Mode ? Select an item

[OK]

[OK]

[OK]

► Your phone comes with this function disabled.

<input checked="" type="checkbox"/> Off
<input checked="" type="checkbox"/> Modem Always
<input checked="" type="checkbox"/> Fax Always

11. SMS

- This menu allows you to view voice mail notification, text messages and numeric pages.
- You can page a mobile phone.
- Use  button press to reach your SMS menu.

• SMS Inbox •

- You can read, forward, reply or delete the message you have received.



- ① Text X/X : Shows the number of received messages.
The first number indicates an entry of new message and a check mark next to an entry indicates that you have read and stored the message.
- ② Shows "No Voice Msg" or "New Voice Msg" in your voice mailbox.
- ③ : Delete all the received messages.

Text Message

- You can read the text messages you have received.
- Up to 50 text messages can be stored.
-  indicates unread messages and  indicates read messages.



- ? To delete an individual message, select the message you want to delete.
- ? Press [VIEW] to display the message.
- ? Press [DELETE] to delete message or [OK] to return to the previous screen.

Voice Message

- This feature notifies you of the voice mails you have received.
- Only the date and time received will be displayed for each message.
- To hear voice messages, press  to call the mobile carrier's voice mail number.

Select 1. SMS Inbox ?  New Voice Msg ?  Select an item

[OK]

[OK]

- ? When your phone receives a voice message, the screen displays "New Voice Msg". Otherwise, the screen displays "No Voice Msg".
- ? If the caller leaves a voice message with a callback number, the number is displayed. If not, the voice mailbox number is displayed.
- ? The callback number is displayed only when your mobile carrier provides the services.

Delete All Message

- * Delete all the text and voice messages stored in the phone.

Select 1. SMS Inbox ?  New Voice Msg ?  Select an item

[OK]

[OK]

—● SMS Outbox ●—

- This feature allows you to compose a new message or send a previously sent message to another mobile phone user.
- You can also use this feature to send a numeric page.

2. SMS Outbox   Select an item

[OK]

Phone Paging

- When prompted type in the numeric address of the person you are trying to page.
- The pager will then prompt you to enter your call back number.
- When you press , you can search phonebook by name and recall the receiver's mobile number. You can only recall a mobile number saved in the phonebook.

Select 2.SMS Outbox ►  Phone Paging [OK]

► Enter the desired destination address ► number then press

[OK]

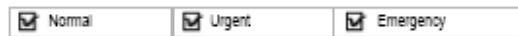
Enter the number you want to be called back

[OK]



► set the message's priority, then press

[OK]



Compose Message

- When prompted, write your message, then enter its destination address, then enter the number you wish to be called back at.
- You can set priority of the text message.
- Priority options are available : NORMAL/ URGENT/EMERGENCY
- The messages you have transmitted are stored in Sent Message box.



1 New Msg : This enables you to prepare any message and send it. When you have entered a message, press [SAVE]. (Follow the steps for Paging hereafter.)
2 Sent Msg : This enables you to select, edit, and send a composed message. Press ④ ⑤ to select the desired message, and press [OK]. If you want to send the message as it is, press [SAVE].
3 Delete Msg : You can delete saved messages. Press ④ ⑤ to select the desired message and press [OK].

- If the phone receives a call short message or alert alarm while you are writing a message, a message is automatically stored in Sent Message box.
- For further details on how to enter characters, refer to page 55,56.

● SMS Setup ●

- This feature allows you to select how you want to be informed of a new message received in your inbox.
- You can have the phone display the entire message on arrival or you can have the phone just display the message arrival notice.



New Msg Alert

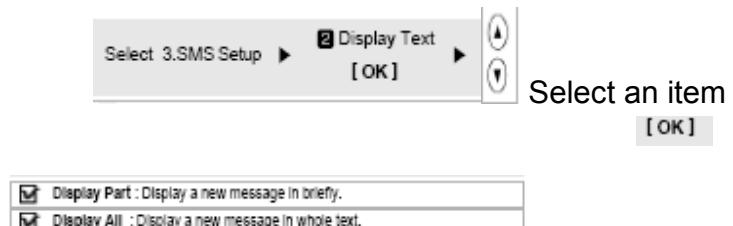
- This feature allows you to select what type of alert you see or hear when your phone receives an incoming message.



<input checked="" type="checkbox"/> Vib + Lamp : Vibrate with lamp
<input checked="" type="checkbox"/> One Time : Alert once
<input checked="" type="checkbox"/> Every 2 Min : Alert every two minutes

Display Text

- The phone may display a new message in brief or in whole.



Delivery Ack

- This feature allows you to be certain that a message you are transmitting via SMS has been delivered successfully.
Once you enable this feature you will receive a confirmation message their network to your intended recipient.



► [NEXT] key toggles YES or NO.

This feature is network dependent.

Character Entry Mode

- This feature allows you to enter characters either to send a message or to store names along with your phone numbers.

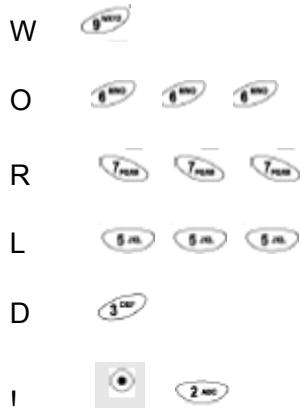
	Moves the cursor one character to the left.		Moves the cursor one character to the right.
	Moves the cursor one character to the upper.		Moves the cursor one character to the lower.
[X->X]	While entering uppercase letters, press this to make subsequent letters typed lowercase.		
[x->X]	While entering lowercase letters, press this to make subsequent letters typed uppercase.		
	Delete the character to the left of the cursor position.		
	Special characters are displayed. When special characters displayed, press [NEXT] to go to the next set of special characters. To input a character, press the character number.		

Entering English letters and numbers

- Press the key on the key pad that shows the letter you wish to type X amount of times until you see that letter on the phone's display.
- To enter numbers, press and hold the dial button for about 2 seconds.

Dial button	Once	Twice	3 times	4 times	Press and hold
1					1
2 sec	A	B	C		2
3 def	D	E	F		3
4 sec	G	H	I		4
5 sec	J	K	L		5
6 sec	M	N	O		6
7 sec	P	Q	R	S	7
8 sec	T	U	V		8
9 sec	W	X	Y	Z	9
0	0				0

- For example, to enter "WORLD!"



Appendix

■ Menu Tree

1. Calls

1. Outgoing ---- 2. Incoming ----- 3. Missed Calls ----- 4. Call Timer

■ Last Call ■ Outgoing ■ Total

2. Phone Book

1. Find Entry ----- 2. Add Entry ----- 3. Edit Group

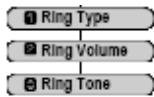
■ Name ■ Location ■ Number ■ Group

■ New Group ■ Change Group ■ Delete Group ■ Group Ring

3. PIM



4. RING



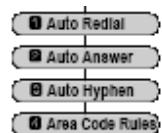
5. SOUNDS



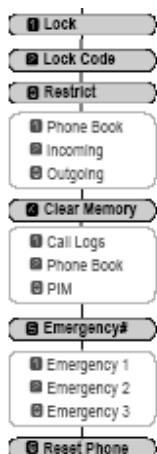
6. Display



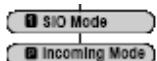
7. Setup



8. Security



9. Data Service



10. SMS

1. SMS inbox ----- 2. SMS Outbox ----- 3. SMS Setup
Text Voice Delete All Phone Paging Compose Msg New Msg Alert Display Text Delivery Ack

Safety information

- 1. Wireless phone safety Tips**
- 2. Consumer information on SAR**
- 3. TIA safety information**
- 4. FDA Consumer Update**
- 5. Qualcomm Patent Information**



FCC RF Exposure Information

WARNING! Read this information before operating the phone.

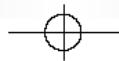
In August 1996, the Federal Communication(FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards.

1. 10 Driver Safety Tips

Your wireless telephone 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 place your call without taking your attention off the road.**



2. **When available, use a hands free device.** 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, if possible, 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 wireless 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 website www.wowcom.com™

Provided by the Cellular Telecommunications & Internet Association

Appendix

2. Consumer Information on SAR

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model.

The highest SAR value for this model phone when tested for use at the ear is ____ W/kg (FCC 승인 결과후 삽입) and when worn on the body, as described in this user guide, is ____ W/kg. (FCC 승인 결과후 삽입) (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ffccid> after searching on **FCC ID POQWCE-100S (FCC 승인후 표기할수 있음.)**

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications & Internet Association (CTIA) web-site at <http://www.phonefacts.net>

* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

Appendix

WINB-30

3. TIA Safety Information

EXPOSURE TO RADIO FREQUENCY SIGNALS

Your wireless handheld portable telephone is a low power radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

In August, 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless phones. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992)
NCRP Report 86 (1986)
ICNIRP (1996)

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

The design of your phone complies with the FCC guidelines (and those standards).

* American National Standards Institute; National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection

ANTENNA CARE

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

PHONE OPERATION

NORMAL POSITION:

Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

TIPS ON EFFICIENT OPERATION:

- For your phone to operate most efficiently:
- Extend your antenna fully.

Do not touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

DRIVING

Check the laws and regulations on the use of wireless telephones in the areas where you drive. Always obey them. Also, if using your phone while driving, please:

- Give full attention to driving -- driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions so require.

Appendix

WIRELESS

ELECTRONIC DEVICES

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6") inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should **ALWAYS** keep the phone more than six inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference .
- If you have any reason to suspect that interference is taking place, turn your phone

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider [or call the customer service line to discuss alternatives.] Optional for each phone manufacturer.

Other Medical Devices

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

Turn 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

Turn your phone OFF in any facility where posted notices so require.

AIRCRAFT

FCC regulations prohibit using your phone while in the air. Switch OFF your phone before boarding an aircraft.

BLASTING AREAS

To avoid interfering with blasting operations, turn your phone OFF when in a "blasting area" or in areas posted: "Turn off two-way radio". Obey all signs and instructions.

POTENTIALLY EXPLOSIVE ATMOSPHERES

Turn 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.

Areas with a potentially explosive atmosphere are often, but not always marked clearly.

Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or 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.

For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

4. FDA Consumer Update**The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Wireless Phones.****1. Do wireless phones pose a health hazard?**

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

2. What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information
Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones.

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

3. What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the

world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

4. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products--and at this point we do not know that there is--it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

- If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

5. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using

wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

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.

6. 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.

7. 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.

Updated on 04/03/02

For additional information :

<http://www.fda.gov/cellphones>

Appendix

5. Qualcomm Patent Information

Licensed by QUACCOMM Incorporated under one or more of the following Patents:

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

Product manufactured or sold in U.S.; "This product is covered by U.S. Pat. 5,818,437, U.S. Pat. 5,953,541, U.S. Pat. 6,011,554 and other patents pending."