VK530

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Maintaining Safe Use of and Access to Your Phone

Important Information

This user guide contains important information on the use and operation of this phone. Please read all the information carefully for optimal performance and to prevent any damage to or misuse of the phone. Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. FAILURE TO FOLLOW THE INSTRUCTIONS OUTLINED MAY LEAD TO SERIOUS PERSONAL INJURY AND POSSIBLE PROPERTY DAMAGE.

⚠️ To reduce the possibility of electric shock, do not expose your phone to high humidity areas, such as the bathroom, swimming pool, etc.

Always store your phone away from heat. Never store your phone in settings that may expose it to temperatures less than 32˚F or greater than 104˚F, such as outside during a snowstorm or in your car on a hot day. Exposure to excessive cold or heat will result in malfunction, damage and/or catastrophic failure.

Be careful when using your phone near other electronic devices. RF emissions from your mobile phone may affect nearby inadequately shielded electronic equipment. You should consult with manufacturers of any personal medical devices such as pacemakers and hearing aides to determine if they are susceptible to interference from your mobile phone. Turn off your phone in a medical facility or at a gas station. Never place your phone in a microwave oven as this will cause the battery to explode.

IMPORTANT! Please read the TIA SAFETY INFORMATION on page 129 before using your phone.

Safety Information

Please read and observe the following information for the safe and proper use of your phone and to prevent any unanticipated damage by accident. Also, keep the user's manual in an accessible place all the times after reading it.
  • Unplug the power cord and charger during a lightning storm to avoid electric shock or fire.
  • Do not use your phone in high explosive areas as the phone may generate sparks.
  • Do not put your phone in a place subject to excessive dust, and keep the minimum required distance between the power cord and heat sources.
  • Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it is dirty.
  • Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause fire or electric shock.

• Hold the power cord plug firmly to plug and unplug the power cord. Ensure the plug is firmly connected. If it is not firmly connected, it may cause excessive heat or fire.

• Do not place any heavy item on the power cord. Do not allow the power cord to be crimped as it may cause fire or electric shock.

• Be careful not to let the battery contact metal conductors such as a necklace or coins. When shorted, it may cause an explosion.

• Do not disassemble or impact to the battery as it may cause electric shock, short-circuit, and fire. Store the battery in a place out of reach of children.

• Using a damaged battery or placing a battery in your mouth may cause serious injury.

• Do not place items containing magnetic components such as a credit card, phone card, bank book and a subway ticket, near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.

• Do not hold or let the antenna come in contact with your body during a call.

• Talking on your phone for a long period of time may reduce the call quality due to heat generated during the use.

• Do not allow excessive vibration or impact to the phone

• When you do not use the phone for a long period time, store it in a safe area with the power cord unplugged.

FCC Information

Read this information before operating the phone.

FCC RF Exposure Information

⚠️

In August 1996, the Federal Communications (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.
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Cautions

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment..

Body-Worn Operation

To maintain compliance with FCC RF exposure guidelines, a minimum separation distance of __ inch (__ centimeters) must be maintained between the user's body and the back of the phone, including the antenna. Third-party belt-clips, holsters, and similar accessories containing metallic components should not be used.

For more information about RF exposure, visit the FCC website at **www.fcc.gov**

FCC Part 15 Class B Compliance

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

Cautions for Travel Adaptor and Battery

"IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS" and "DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS"

"For connection to a supply not in the U.S.A., use an attachment plug adaptor of the proper configuration for the power outlet."

" This power unit is intended to be correctly orientated in a vertical or floor mount position."

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

▶ Do not disassemble.
▶ Do not short-circuit.
▶ Do not expose to high temperature: 60℃ (140°F).
▶ Do not incinerate.

Battery Disposal
▶ Please dispose of your battery properly or bring to your local wireless carrier for recycling.
▶ Do not dispose in fire or with hazardous or flammable materials.

■ **Lists of Menu Functions**

1. Display

- ▶ 1-1: Standby Select
  - ▶ 1-1-1: Images
  - ▶ 1-1-2: Animation
  - ▶ 1-1-3: Calendar
  - ▶ 1-1-4: Clock
  - ▶ 1-1- 5: Zodiac
  - ▶ 1-1-6: My Images
  - ▶ 1-1-7: Sub LCD
- ▶ 1-2: Power on / off
- ▶ 1-3: Incoming call
- ▶ 1-4: Outgoing call

2. Sound

- ▶ 2-1: Alert
- ▶ 2-2: Welcome
- ▶ 2-3: Good Bye
- ▶ 2-4: Keytone

3. Setting

- ▶ 3-1: Phone Set
  - ▶ 3-1-1: Time Set
  - ▶ 3-1-2: Language
  - ▶ 3-1-3: Answer Key
  - ▶ 3-1-4: Auto Answer
  - ▶ 3-1-5: Auto Redial
  - ▶ 3-1-6: Lighting
  - ▶ 3-1-7: Factory Set
- ▶ 3-2: Call Set
  - ▶ 3-2-1: Call Divert
  - ▶ 3-2-2: Call Barring
  - ▶ 3-2-3: Call Waiting
  - ▶ 3-2-4: Send My No.
  - ▶ 3-2-5: Network Sel.

- ▶ 3-3: Private
  - ▶ 3-3-1: Call Time
    - ▶ 3-3-1-1: Last Call
    - ▶ 3-3-1-2: All Calls
    - ▶ 3-3-1-3: Received Call
    - ▶ 3-3-1-4: Dialed Call
    - ▶ 3-3-1-5: Reset
  - ▶ 3-3-2: Call Record
    - ▶ 3-3-2-1: Dialed No.
    - ▶ 3-3-2-2: Received No.
    - ▶ 3-3-2-3: Missed No.
    - ▶ 3-3-2-4: Delete All
  - ▶ 3-3-3: FDN
  - ▶ 3-3-4: PIN
  - ▶ 3-3-5: Change PIN 2
  - ▶ 3-3-6: Password

- ▶ 3-4: PC Sync Set
  - ▶ 3-4-1: Connect
  - ▶ 3-4-2: Disconnect

4. Phonebook

- 4-1: Search
  - 4-1-1: Search All
  - 4-1-2: By Entry No.
  - 4-1-3: By Name
  - 4-1-4: By Phone No.
  - 4-1-5: In Phone
  - 4-1-6: In SIM
  - 4-1-7: SDN
  - 4-1-8: IDD Search
  - 4-1-9: Scratch Pad
- 4-2: Add Name
- 4-3: Caller Groups
  - 4-3-1: Name List
  - 4-3-2: Add from Phone Book
  - 4-3-3: Delete Group
  - 4-3-4: Rename Group
  - 4-3-5: Group Melody
- 4-4: Own Number
- 4-5: Copy
- 4-6: Move
- 4-7: Delete
- 4-8: Memory Status

5. Message

- 5-1: Write
- 5-2: Inbox
- 5-3: Drafts
- 5-4: Outbox
- 5-5: Memory Status
- 5-6: Setting

6. PIMS

- 6-1: Scheduler
- 6-2: Alarm Set
- 6-3: Memo Box
- 6-4: Calculator
- 6-5: D-Day
- 6-6: Bio Rhythm
- 6-7: Unit Convert
- 6-8: World Time

Prior to Use

Names of each part

Prior to Use

■ **Unpacking**

| Phone | Battery | Travel adapter | Owner's manual | Ear-microphone |

The travel adapter and the ear-microphone may be different depending on the country.

PC Sync   PC Sync Connection Cable

Prior to Use

■ Phone Layout and Keys Function

Ear-microphone Jack

Antenna

Front Cover Display

Camera

Earpiece

Display

CLR key

Navigation / Browser WAP / eZi key

OK key

Menu Key
Volume Keys

Sand / Dial / Speed-eZi Key

End / Power on-off key

Alphanumeric Keys

Special Function Keys

■ Key Description

Makes or answers a call. In Standby Mode, accesses the call record list. Using this key, you can quickly and conveniently enter a text.

Ends a call. When pressed and held, switches the phone on and off. Pressing this key when selecting options, you can cancel your input or return to Standby Mode.

Perform the functions indicated by the text above them, on the bottom line of the display. In standby mode, press the CLR key for 2 seconds, to use the Main LCD as a Mirror.

Scrolls through the menu options to select the options. In Standby Mode, the Left key enters "Message", the Up key enters "Camera", the Down key enters "Sound & Game" and the Right key enters "Phonebook".

In Standby Mode, launches the WAP (Wireless Application Protocol. For text input, changes the input modes.

Enters numbers, letters and some special characters. When pressed and held in Standby Mode, No. 1 key quickly accesses your voice mail service.

✱ When pressed and held, enters or exits the Manner/Normal Mode.

＃ When pressed and held, enters or exits the Key Lock Mode.

(On the left side of the phone.) During a call, adjusts the earpiece volume. In Standby Mode, adjusts the key tone volume. When the phone is closed, the brightness of the front display can be adjusted, and date and time can be displayed. When the ear-microphone is connected, this key can receive or end a call.

■ Display Icon Description

Shows the received signal strength. [📶 : Strong 📶 : Weak]

Appears when a call is in progress

Appears when you are out of a service area.

Appears when international roaming service is enabled

Appears when your message box is full. [SIM Phone]

Appears when you have new or unread message.

Appears when you set the alert type for incoming calls to Vibration.

Appears when you set the alarm(s) to ring at a specific time.

Shows the level of you battery.
[Full Deficient Needs charging]

Prior to Use

■ Charging a Battery
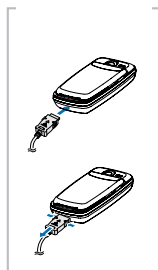
When Charging the Battery on the Phone.
You can use the phone while the battery is being charged.

1. Plug the connector of the travel adapter into the outer connector of the phone.

2. Plug the charger into the cord.

3. When charging is completed (when battery indicator changes to Green), pull out the charger cord from the power outlet before disconnecting the cord from the phone.

Basic Functions

■ Switching the Phone On/Off

Hold down the below key more than 1 second to switch the phone on/off.

Note: When switching the phone on without the SIM card installed, the phone notifies that you have not installed it. At this time, you can make an emergency call using the SOS key but cannot use the phone for other purposes.

Basic Functions

Basic Functions

■ **Making a Call**

You can make a call by following the procedures below:
1. When the standby screen is displayed, enter the area code and phone number.
2. Press the ☎ key to make a call.

> **Note:** When having entered a wrong digit, you can clear the digit by briefly pressing the cancel key. Pressing and holding the cancel key for more than one second will clear all digits you have entered. When selecting the area code, enter the phone number according to the procedure. (For further details, see page 49.)
>
> ➤ Pressing the ☎ key or closing the folder will finish your call.

Making an International Call
1. Press and hold the 0 key (for about 2 seconds). The character # appears.
2. Enter the country code and phone number.

Making a Call from Phonebook
You can make a call by pressing the number saved in your Phonebook.
For further details, see page 45.

Speed-dialing
You can make a call by pressing the entry number(s).
In phone: Press the associated number for more than one second.

In SIM card: After pressing the ✳ key, press the associated number for more than one second.

Redialing
You can redial the last number by pressing the ☎ key twice in Standby Mode.
As your recent outgoing log is saved in the phone, you can make a call to any number of the log.

Basic Functions

■ Answering a Call

When somebody calls you, the phone rings or vibrates.
If you use the CID (Caller ID) service, the caller's phone number will display.
(Or the caller's name if saved in your Phonebook is displayed.)

Note: 1. When closing the phone, you can answer a call by pressing the ☎ key or function key.
2. When answering a call with ear-microphone connected, press the send key or the button on the ear-microphone.
3. You can end a call by pressing the ☎ key or closing the folder.

■ Viewing Missed Calls

The number of missed calls is displayed on the standby screen. Pressing the Back key will clear missed calls. By pressing the key, you can find out who was calling you.

To...	Press the
find out missed calls	the ✉ key, or the ✉ key.
dial the number displayed	the ☎ key.
save or cancel missed calls	the selection key. (See below.)

Basic Functions

■ Using Ear-microphone

With the ear-microphone supplied with the phone, you can make or answer a call without holding the phone.
Connect the ear-microphone to the jack at the left side of the phone.
To answer a call, press the button for 1 second.
To end a call, press the button for 1 second.

> **Note**: Correctly fit the ear-microphone into the jack.

■ Manner Mode

Manner mode is convenient when discretion is required and you want to prevent the phone from making noise while still wishing to receive a call, in a public area or at a meeting for example. After a call is ended, the phone will be continuously in Manner Mode.

- To **Set** : To set: press and hold the ✳ key.
- To **Clear** : Press and hold the ✳ key.

■ Phone Lock

You can answer a call even when this feature is enabled. The feature will keep enabled even if you switch the phone on after switching it off.

- To **Set** : Press and hold the # key.
- To **Clear** : Press and hold the # key to enter a password.

The password is preset to "0000" at the factory.

Basic Functions

■ Options During a Call

You can use a number of control functions during a call. Any option on the screen setting page is available: however, this feature is available only during a call.

[Putting a Call on Hold]

This feature is available whenever you want. You can make or answer a call while you have a call in progress if the network service is supported.

If one call is on hold, you can reactivate the call by pressing the Right key, or pressing the OK key after pressing the Send key on the Options key to make sure you return to the call.

Ending a call in use: finishes the call you are making.
Ending a call on hold: finishes the call on hold.
Ending both calls: finishes both calls.
Adding a call: during a call, you can call another person.

[Switching the Microphone Off]

You can switch your phone's microphone off so that the other person cannot hear you.
Note: Use this feature when you wish to converse with another person but do not want the calling person to hear you.
To cancel: after pressing the Options key, select the "Turning Mic On" option.

Basic Functions

[Sending DTMF]
You can automatically send the number entered on the screen.

[Phonebook] : You can consult the phonebook during a call.

[Text Input] : You can receive or send a text during a call.

[Private Call] : Use this feature while Meeting Call is enabled when you want to talk with a specific person.

[Options] : You can select the menu options during a call.

[Call Divert] : When another call is received during a call, you can answer the last received call or keep the call you are making on hold. Using this feature, you can switch between the calls.

[Conference Call] : Use this feature to set all calls to not standby mode but call mode.

[Volume Adjust] : To adjust volume, use the volume adjust button on the left side of the phone.

Call Functions
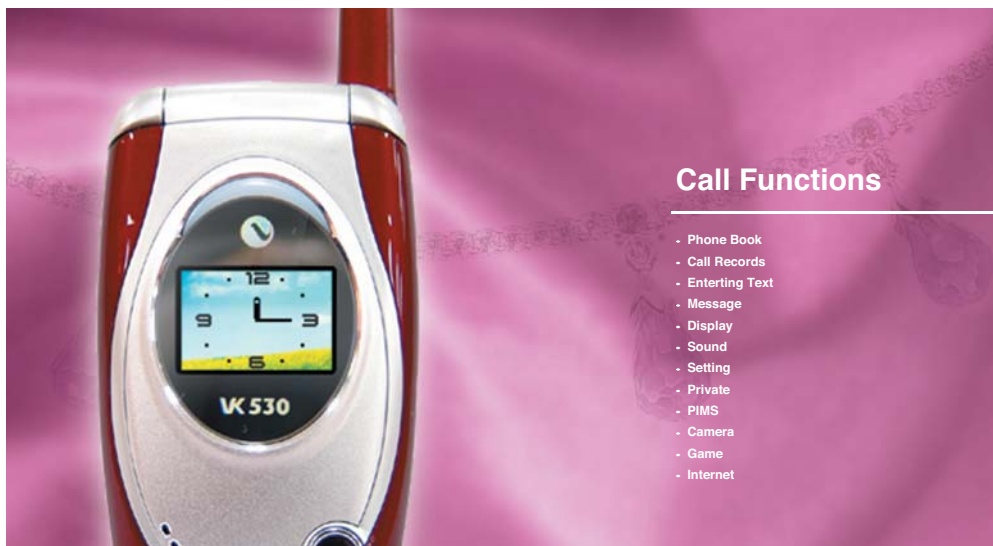
Phonebook_ In the Menu option, briefly press the ✐ key and then the ➧Phonebook or the ✎ key.

You can save names and phone numbers in the SIM card or the phone. The SIM card and the phone are separated but called as "Phonebook" as one source of information.

■ Storing of Phone Number Displayed on the Screen

Enter a phone number ▶ Save ▶ Select Phone or SIM card ▶ Select the key ▶ Save Name ▶ Select the key, Storing completed

Note: 1. For text input mode. see page 59
2. For further entering phone number method. see page 45.

Phonebook

■ Search

You can search for a number in the phonebook.

Search All : Finds out all the phone numbers saved. (Both phone and SIM card are available)

Press the 📨 soft key
▶Press the 4key
▶Press the 1 key

SEARCH
1 Search All
2 By Entry No.
3 By Name
4 By Phone No.
5 In Phone
6 In SIM
7 SDN

SEARCH ALL
ADMJ
8552635
ADMJ ●·············· Phone numbers saved in the phone.
ADMJ
B
CN CONNECT ·············· Phone numbers saved in the SIM card.

Note : 1. To dial the number you select, press the 📞 key.
2. In Standby Mode, Phonebook appears above the Right key, which allows accessing to Phonebook.

By Entry No.: You can make a call by pressing the entry number.
Select (Menu) ▶No.4 ▶No.1 ▶ No. 2 ▶ Enter an entry number, and then select the key.

By Name: You can make a call by using name.
Select (Menu) ▶No.4 ▶No.1 ▶ No. 3 ▶ Enter a name, and then select the key.

By Phone No.: You can make a call by using number.
Select (Menu) ▶No.4 ▶No.1 ▶ No. 4 ▶ Enter a number, and then select the key.

Note : 1. Entering one character of the name you want to search will display all the associated names.
2. searching without entering any entry number. name, number will show all the numbers stored in both the phone and SIM card.
3. You can dial the number seached to press the key.
4. For further details on character entering. see page 59.

Phonebook

In Phone: You can find out the number you want in the phone.
Select (Menu) ▶ No.4 ▶ No.1 ▶ No.5 ▶ Search all the numbers in the phone

In SIM Card : You can find out the number you want in the SIM card.
Select (Menu) ▶ No.4 ▶ No.1 ▶ No.6 ▶ Search all the numbers in the SIM card

SDN
This means SDN (Service Destination Number) provided on the network.
The number includes emergency call, phone number information service and voice mail.

IDD Search
You can find out the area number you want.
Select (Menu) ▶ No.4 ▶ No.1 ▶ No.8 ▶ IDD Search.

Scratch Pad
Pressing the Save key after entering the number you wish to remember during a call, you can find out the number in Scratch Pad.

Note : 1.When finding out the area number. Press the remaining digits of the phone number and press the 📞 key to make a call.
2. For text input mode, see page 59.

Phonebook

■ Add Name

You can save up to 400 phone numbers in your phone, respectively.
For convenience's sake, save the numbers you frequently use.

Select ✎ (Menu)
No.4 ▶ No.2
Select phone of SIM
card

After scrolling through the menu by selecting ✉ or ✉ ,select an entry number.
After scorlling through the menu by selecting ✉ or ✉ ,enter a number.
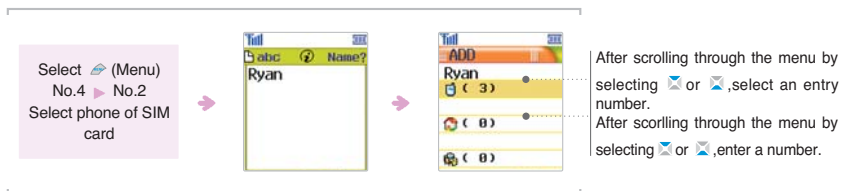
Note : 1. You can store only one number by one person in the SIM card.
2. You can storeup to 400 phone numbers in your phone.
3. You can set groups and assign different ringtones by each group.(Caution: The SIM card offers no ringtone assigning feature. but allows groupsetting.)
4.For text input mode. see page 59.

Caller Groups and Ringtones

After scrolling through the menu by pressing ✉ or ✉ ,select a group.(For group adding method)
After scorlling through the menu by pressing ✉ or ✉ ,select a ringtone.
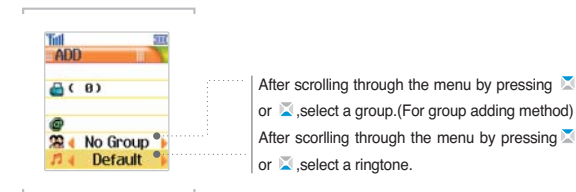
Note You cannot set any ringtone when storing in the SIM card.

Phonebook

■ Callers Groups

You can set phone numbers by different groups.

Select ✎ (Menu)
No.4 ▶ No.3

➡

CALLER GROUPS
1 Family
2 <Empty>
3 <Empty>
4 <Empty>
5 <Empty>
6 <Empty>
7 <Empty>

➡

Select ✎
▶ Group Name Input
▶ Ringtone Select ▶ ✎ Select

Note For the information of entering text, see page 59.

Options

CALLER GROUPS
1 Family
2 <Empty>
3 <Empty>
4 <Empty>
5 <Empty>
6 <Empty>
7 <Empty>

➡

OPTION
1 Member List
2 Add from PB
3 Delete Group
4 Rename Group
5 Group Melody
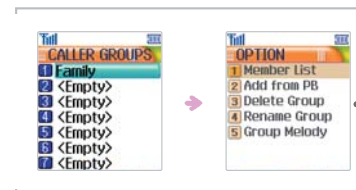
Name List: Shows the member associated with the group.
Add: In the Add option of Phonebook, you can add, save the number of the Phonebook to the associated group.
Delete: You can delete a group.
Change Name: You can change the name of a group.
Melody Set: You can set the ringtone by group.

Phonebook

■ Own Number

This feature allows:
- Storing your own phone number in the SIM card.

It helps your memory. If necessary, you can find out your own number using this feature.
Any changes made in this feature have no effect on the user's actual phone number in the SIM card.

Select ✎ (Menu)
No.4 ▶ No.4

Select ✎ ▶ enter a name
Select ✎ ▶ store a number
Select ✎

■ Copying and Moving of the Phone Number

Copying and Moving of the Selected Number
You can copy and move the selected number between your phone and the SIM card.

Copy
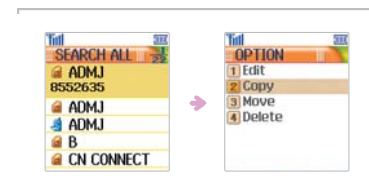
Moving: Select Option ▶ Press the selected option ▶ Move ▶ Assign an option ▶ OK

Phonebook

Copy and Move
Copy / Move
You can copy and move phone numbers between your phone and the SIM card.
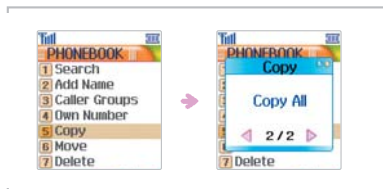
Select One By One: Copies and moves only the selected number.
Select Copy All or Move All: Copies and moves all the number saved in your phone and the SIM card.
When selecting Copy All and Move All, you can copy all the numbers after setting target position.

■ Delete

You can delete the phone numbers in your phone and the SIM card.

Delete the Selected Option Only

Select ✐ (Menu)
▶ No.4 ▶ No.1
▶ No.1
▶ Select ✐
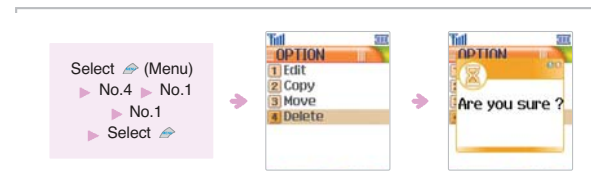
⊠ Option to be selected
⊠ Option to be deleted

Phonebook

Delete

If selecting One By One, you can delete the number you want when all phone numbers are displayed.
If selecting Delete All, you can delete all the saved numbers by selecting your phone or the SIM card.

Note: Deleting requires your password entering, the preset password is "0000"

■ Memory Status

This feature allows you to check how many names and numbers are currently saved in your phone's memory (including the SIM card and phone). You can check the respective memory capacity.

Call Record _

It shows a list of the recent incoming, outgoing, missed calls.
Redialing is available not only in Outgoing, but also in Incoming and Missed Calls. If the number(s) is (are) saved in Phonebook, corresponding name(s) will be displayed.

Dialed No : It saves and displays up to 20 phone numbers you dialed.
Received No : It saves and displays up to 20 phone numbers you received.
Missed No: It saves and displays up to 20 phone numbers you failed to answer
Delete All: Deletes all incoming, outgoing and missed calls.

In Standby Mode, when you make or end a call, corresponding number is automatically displayed on the screen.
Edit: Allows editing and storing the number(s) selected in the menu.
Delete: Deletes all the selected number.

Entering Text

Entering Text

When using your phone, you will need to enter text at many times; for example, when storing a name in the Phonebook, creating a greeting note, writing a text message or scheduling events in your calendar.
You can change the text input mode using the Send key. The following text input modes are available:

· **eZi English :** Allows you to enter the English letters by pressing each key only once for each character.

> **Note :** eZi text input method allows you to enter text
> easily and quickly. Simply pressing each key only once for each character, you can get the words you want.
> Furthermore, the candidate is predicted along with other candidates that fit the letterstyped thus far. So, you do not
> need to input entire characters to make a word.

· **ABC :** Allows you to enter letters by pressing the key labeled with the desired letter once, twice, or three times until the letter appears on the display.

· **Numeric :** Allows you to enter numbers.

· **Symbol :** Allows you to enter the symbols or punctuation marks.

· **Dictionary :** Allows you to add new words into the internal database for the eZi English mode.

Entering Text

■ eZi English Mode

This mode allows you to enter English words with only one keypress per letter.
Each key on a keypad has more than one letter-a single press on the **5** key could be J, K, or L. The eZi English made automatically compares your key presses to an internal linguistic database to determine the correct word.

This mode requires far fewer keystrokes than the traditional multi-tap method (ABC mode).

Typing English Words

To type a word, press keys corresponding to the letters you need. Remember the following as you are typing :

1. Press keys on the phone just once per desired letter. For example, to enter 'hello', press the following keystrokes : **4**, **3**, **5**, **5**, **6**.

2. The word you are typing appears in the display. It may change with each key you press.

3. Type to the end of the word before editing or deleting any keystrokes.

4. Complete each word with a space by pressing the **0** key.

If the word that appears in the display is not the word that you desire, press the ▨ key one or more times to display alternate word choices for the keys you have typed. (For example, 'of ' and 'me' both shares the sequence **6**, **3**) The phone displays the most commonly used choice first.

Note : The phone displays all the words which is containing the letters you have entered. By doing this, the eZi mode saves you typing extra keypress.

Entering Text

Smart Punctuations

Full stop, hyphen, and apostrophe are available on the **1** key. The eZi mode applies rules of grammar to insert
the correct punctuation.
Notice that the **1** key is used twice in this example to display two punctuation marks:

Clearing Characters

Press the ▭ CLR soft key one or more times to remove characters from the text area.

Entering Text

ABC Mode

When typing in ABC mode, you should press key labeled with the required character:

- Once for the first character.
- Twice for the second character and so on.

For example, you press the **2** key three times quickly to display the character "C", the **5** key three times quickly to display the character "L".
So, this method is called Multi-tap typing.

The cursor moves to the right when you press a different key. When entering the same character twice (or a different character on the same key), just wait for a few seconds for the cursor to move right automatically, and then select the next character.

Shifting a Case

To shift the case of the next characters that you type, press the ⌐ key one or more times.
There are two shift states:
Lower Case is indicated by **abc** in the display, and Capitals Lock is indicated by **ABC**.

Scrolling

- To move the cursor left or right through your text message, press the ▨ or ▨ key.

Entering Text

Key	Characters in the Order Displayed	
	ABC	abc
	. , ; ! ' " ( ) 1	. : _ - / & = ? @
	A B C 2	a b c 2
	D E F 3	d e f 3
	G H I 4	g h i 4
	J K L 5	j k l 5
	M N O 6	m n o 6
	P Q R S 7	p q r s 7
	T U V 8	t u v 8
	W X Y Z 9	w x y z 9
	0	0

Clearing Strokes and Characters

Press the ⌫ **CLR** key one or more times to remove characters from the Text Area.

For list of characters available see table.

■ Numeric Mode

Numeric mode is indicated by **123**. It enables you to enter numbers into a text message. Press keys corresponding to the desired digits, and manually switch back to the text entry mode of choice.

■ Symbol Mode

Symbolic mode enables you to enter symbols into a text message.

To scroll through the available symbol categories, press the ⊠ or ⊠ key. When you see the desired symbol on the display, press the appropriate number key (1 to 9) to insert the symbol. The phone automatically switches back to the text entry mode used just prior to selecting Symbolic mode.

Message

Message

This is a network service.
Using this program, you can enter, send, receive, check and edit a text.

■ Write

Entering and Sending a New Message
Using this feature, you can send your text to other person.
Select ✐ ▶ No.5 ▶ Write ▶ Messages ▶ Text Input ▶ Select "Send" ▶ Number Input ▶ Send text message

■ Inbox

Selecting the Options
Select Inbox ▶ Select Saved Message ▶ Search a message ▶ Select Options ▶ Delete /reply /transfer/dial /store phone number separately /Save in the SIM card /Delete All
Or Select Inbox ▶ Select the Message Saved in the SIM card ▶ Search a message ▶ Select Options ▶ Delete /reply /transfer/dial /save phone number separately
Delete: deletes the selected message.
Reply: Sends a reply.
Transfer: Sends the received message to other person. You can send the message, which is edited or not.
Dial: You can make a call to the person who sent a message to you.
Cut Number: Saves the phone number of the person who sent a message to you. For text input mode, see page 59.
Delete All: Deletes all the messages in Inbox completely.

Note: You can be informed of a new messagereceived with bell sound or vibration. The latest received message is placed on top.

Message

■ Drafts

This box saves messages that you have not sent or you failed to send.
Delete ▶ Deletes the selected message.
Edit/Send: Edits the selected message, and then sends it.
Select ✎ ▶ No.5 ▶ Drafts ▶ Select a message ▶ Select "Options" ▶ No.2 ▶ Edit ▶ Send
Storing in the SIM card: Saves the message in the SIM card.
Delete All: Deletes all the messages saved in your phone.

■ OutBox

This box saves any messages that you have already sent.
Delete: Deletes the selected message.
Resend: Resends the message.
Transfer: Edits the selected message, and then sends it to other person.
Storing in the SIM card: Saves the message in the SIM card.

■ Memory Status

You can check the memory status for all messages, including incoming and outgoing ones.
It shows the saved status of the SIM card and phone.

■ Setting

Short Msg.

Message Service Center: This number is required when you save or modify the text messages you sent or received. You must obtain this number from your service provider.
Sent Message Box: Determines whether to save the messages you sent, or not.
Delivery Report: Informs whether or not the message is successfully sent to your recipient.
Validity Period: Allows you to set the length of your messages are saved at the message service center.
Message Type: Allows you to set the message type to "Text", "Voice", "Fax", "X.400", "E-mail", "ERMES"
You must set the message to "Text".

Display

Display _

Using thus feature, you can configure the display according to your preferences.

■ Standby Select

Select Standby Select ▶ Images ▶ 1 ▶ 1 ▶ Select a ✕ background image ▶ Select ✎ ▶ Select ☎ .
Select Standby Select ▶ Animation ▶ Select a ✕ image ▶ Select ✎ ▶ Select ☎ .

Text Input
You can enter your name on the screen up to 16 characters in English and 8 characters in Chinese.

Note : For text input mode. see page 59.

Calendar: A background of a calendar type. You can select it between monthly and weekly one.

Clock: A background of a clock type. You can select it out of Digital, Analog and Dual modes.

Clock shape
1. Main: Select one out of Digital/Analog/Dual.
2. Sub: Select one between Digital/Analog.
   Use ✕ to select the type of the clock.

Zodiac: A background of 12 constellations type.
My Images
Sub LCD

Display

■ Power On/Off

Use ⊠ to select . ▶ Select ✎ ▶ Select ☎ .

Note : In setting Standby Mode. You can select one out of image, Animation, Calender, Clock and Zodiac. In setting Power On/Off, Incoming Call and Outgoing Call, you can select one only out of Image.

Sound _ Select ✎ ➜Select "Sound" (⊠)

■ Alert

Allows you to set the ringtone.

Select ✎ (menu)
▶ No 2 ▶ No 1
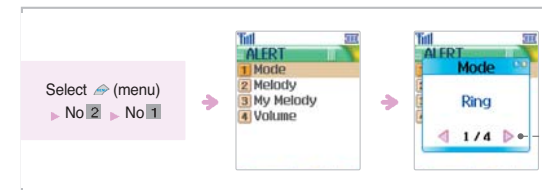
Scroll through the list by pressing ⊠ and then select ✎ .

Ring: The phone rings.
Vibrator: The phone vibrates.
Vip+Ring: The phone first vibrates and then starts ringing.
Silent: The phone neither rings nor vibrates. The display only shows the name and phone number.

Sound

Melody

Allows you to change your ringtone.
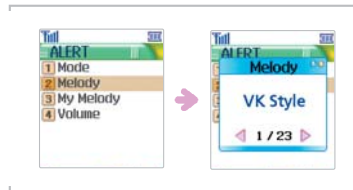
Scroll through the list by pressing and then select the melody you want.

Note Once Manner Mode is enabled, you cannot hear the melody.

Volume

Allows you to adjust the volume.

Select (menu) ▶ No 2 ▶ No 1
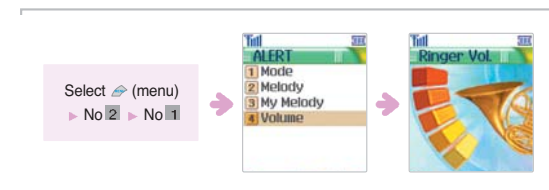
Scroll through the list by pressing to adjust the volume to the extent you want.

Note Once Manner Mode is enabled, you cannot hear the melody.

Sound

■ Welcome/Goodbye

Allows you to set the melody when power is on/off.

Select ✐ (menu)
► No 2 ► No 1

WELCOME
1 Melody
2 My Melody
3 On/Off

Select Melody

Allows you to detdemine whether or not the power on/off melody will be set.
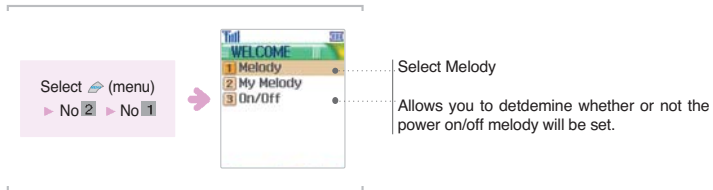
➡ Scrolls through the list by pressing to select the melody you want.

Note 1. When you want not to set the power on/off melody, set the melody to "OFF".
2. Once Manner Mode is enabled, you cannot hear the melody.

■ Keytone

Allows you to adjust the keytone.

Select ✐ (menu)
► No 2 ► No 4

KEYTONE
1 Type
2 Volume

TYPE
1 Dial Sound
2 Menu Sound

Dial Sound: Sets the volume of the keypad.
Menu Sound: Sets the volume of the menus

➡ Scroll through the list by pressing ✉ and then adjust the volume.

Volume: By pressing ✉ , you can adjust the volume. (The volume is of 5 levels.)

Setting __ (Menu) Select Settings

■ Phone Set

Set Time Setting, Language, and Answering Type of your mobile phone.
(You can set the time, language and dial function of your phone.)

Time Set

You can set the time, date and area displayed on the screen.

Select ✐ (menu)
► No 3 ► No 1

In entering a date, scroll through the menu by pressing ◄ ► and enter in the order of Year ► Month ► Day.
In entering a time, scroll through the menu by pressing ◄ ► and enter in the order of Hour ► Minute ► Scroll through the menu by pressing.

➔ Scroll through the list by pressing ◄ ►, set the item you want.

Language

Shows the languages you can select one.

Select (Menu) ► No.3 ► No.1 ► No.2 ► Select a language

➔ Scroll through the list by pressing ✕ to select your language.

Answer Key

Allow you to select the incoming calls mode.
Any Key: Open the folder and then press any key to receive a call. (However, excepting the ☎ key and Right key.)
Send Key: Open the folder and then press the Send key, or the Left key to answer a call.
Folder Open: When an incoming call is received, open the folder to answer the call.

➔ Scroll through the list by pressing ✕ and then select you setting by pressing the ✐ key.

Setting

Auto Answer

When using the hands-free kit, the phone automatically answers calls after a set time.

Select ✐ (menu)
▶ No 3 ▶ No 1

Off: Deactivates the Auto Answer setting.
5 seconds: After 5 seconds, the phone answers call.
10 seconds: After 10 seconds, the
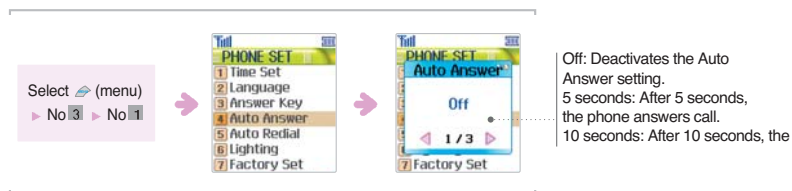
Note If the hands-free kit is enabled, the phone automatically answers calls after a set time. without the need of pressing other key.

Auto Redial

The phone automatically redials a phone number after an unsuccessful call.

Select ✐ (menu)
▶ No 3 ▶ No 1

➤ Scroll through the list by pressing ▨ and then select the option by pressing ✐ .

Note The interval of redialing is not identical.

Setting

Lightning

You can select the background color of the screen displayed when opening the folder.

Time

Select ✎ (menu)
▸ No 3 ▸ No 1
▸ No 6

Always On: The backlight remains on continuously.
15/30/60 seconds: After the last pressed key, the backlight remains.

➜ Scroll through the list by pressing ✕ and then select the time.

Contrast

This option allows you to adjust the contrast of the display screens.

The higher the number of LEVEL is, the lighter the screen becomes.

Note You can turn Sub LCD on with the folder closed, by pressing the button at the side of the Phone.

Setting

Factory Set

Entering your password will reset all functions.
The confirm message will prompt when you enter your password, you can reset by selecting YES.
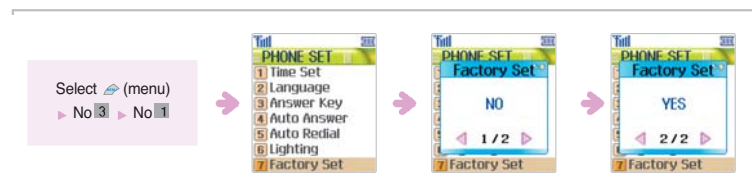
> **Note** The preset password is "0000".
> Scroll through the list using and then reset using.

■ Call Set

Call Divert

This feature enables incoming calls to be rerouted to the number you specify.
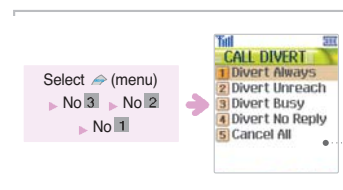
Divert Always: All Calls are diverted.
Divert Unread : Calls are diverted if your phone is turned off, or not in an area covered by your service provider.
Divert Busy: Calls are diverted to the number you set if your phone is engaged on another call.
Divert No Reply: Calls are diverted if you do not answer the phone.
Cancel All: Call Divert options are deactivated.

> **Note** You can divert incoming business calls to yuor colleague's phone number during your holiday.
> Scroll through the list using ✉ and then select an option using ✎.

Setting

Call Barring

You can restrict your calls or network function including the following options.
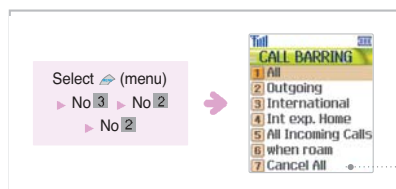
All: Calls cannot be made or received.
Outgoing: Calls cannot be made.
International: International calls cannot be made.
Int Exp. Home: When abroad, calls can be made to your home country.
All Incoming Calls: Calls cannot be received.
When Roam: When abroad, calls cannot be received.
Cancel All: All call barring options are deactivated.
Change Passwd: You can change your password.

Call Waiting

This feature allows you to keep an incoming call on hold while making another call. By selecting the call you want to receive out of the two calls, you can keep the other on hold.

Send My No.

You can show your number to your recipient when you make a call.

> **Note** Depending on the type of the network, this feature is available.

Network Sel.

This feature enables you to automatically or manually select the network used when roaming outside your home area.

> **Note** You can select a network other your home network if a vaild roaming agreement is set up.

Setting

To indicate to automatically or manually select the network when roaming: Press or until the appropriate option and
press .
1. You are connected to the first available network when roaming.
2. The phone scans for the second network you can connect.
   You may be connected to this network.
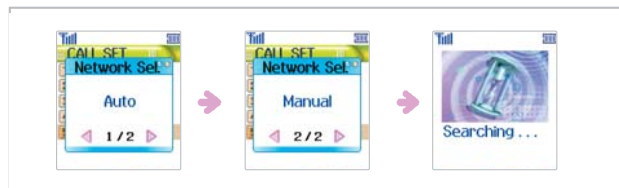
Private

Private_ Select ✎ (Menu) →Select Private

■ Call Time

This option allows you to check the timers for calls made and received.

Select ✎ (menu)
▶ No 3 ▶ No 3
▶ No 1
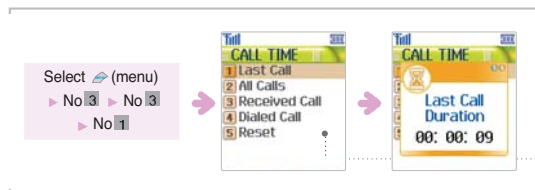
Last call : Shows the length of the last call.
All Calls : Shows the total length of all calls made or received.
Received Call : Displays the total time of calls you answered.
Dialed Call : Displays the total time of calls you made.
Reset : Initializes the call time.

Note The call time on your phone, actual call time and call cost are not necessarly identical. See page 59.

■ FDN

FDN: With the phone FDN (Fixed Dialing Numbers) is provided, you can dial only several numbers you specify. To use this mode, you have to enter PIN2 number.

The following options are available:

Enabling: Activates or deactivates the FDN mode.

Fixed numbers: Allows adding, editing and deleting.
The number of your phone may different from the number of the SIM card.

Note Not all the SIM card have the PIN2 code. When your SIM card has not this feature, this option dose not appear.

Private

■ PIN

PIN (Personal Identification Number)prevents the use of an unapproved SIM card.
PIN is usually provided with the SIM card. When your PIN has been approved, you must enter the PIN each time you switch the phone on.

Enable PIN: As the SIM card is locked, you must enter your PIN whenever you switch the phone on.
Change PIN1: You can change your current PIN to a new one. You must enter the current PIN before you can specify a new one.

> **Note** When PIN is not enabled, you cannot use this feature.

■ Change PIN2

To some SIM cards, PIN2 is also provided. To use a function, this number may be required. This feature requires support of the SIM card.

Change PIN2: You can change your current PIN to a new one. You must enter the current PIN before you can specify a new one.

> **Note** Not all the SIM card have the PIN2 number.

■ Password

Password Input
You can lock "Private", "Phonebook", "Call Record" and "Entering Text". The password is preset to "0000".

Phone Lock
You can use this feature to limit the use of your phone. When this feature is enabled, you must enter the phone password to use any function of the phone each time you switch the phone on, excepting the SOS key and Emergency Call key. The password is preset to "0000".

Private

Change Password
This feature lets you change your preset or current phone password to a new one.

The password is preset to "0000".

PC Sync Set

To select images
Select ▶ No.1 ▶ Select "Standby Mode" ▶ No.6 ▶ Select "My Images"

To select melodies
Select ▶ Select Melody Settings ▶ "Ringtone / Power On/Off" ▶ Select "My Melody"

Connect: Connects the phone to your computer.
Disconnect: Disconnects the phone from your computer.

Note This option is available when you obtain the data cable from your local VK dealer.
Using the data cable, connect the phone to your computer and download sounds and images from the computer.
For computer environment setting and further details, see the data cable user's manual.

PIMS

PIMS __ Select ✐ (Menu) →Select "PIMS"

You can save date, schedule and time to Scheduler.

■ Scheduler
Search

Select ✐ (menu)
► No 6 ► No 1
► No 1
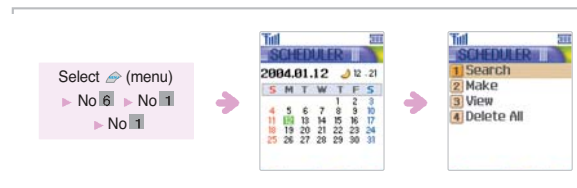
Make

Scheduler: Sets various schedule events including appointments and meetings.

Text input

Time setting

Alarm setting mode

Alarm display mode

Alarm melody setting

PIMS

View

Select ✍ (menu)
▸ No **6** ▸ No **1**
▸ No **1**
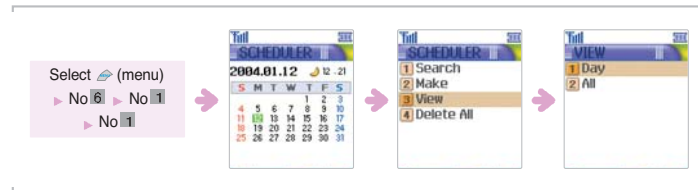
View Day: Shows only today's schedule.
View All: Shows all the schedule entered.

➡ Select an option by pressing ⊠ .

Call: Sets the schedule of calls you need to make. The schedule is displayed when the set time is reached, you can make a call by confirming it.

Anniversary: anniversaries to be remembered such as wedding anniversaries or birthdays.
Scroll through the menu pressing to select a melody.

> **Note** When the set time or date for a schedule is reached, related datails are displayed and the alarm rings.
> You can enter several schedules on a same day.
> To stop the alarm ringing, open the folder and press any key.
> For text input mode, see page 59.

PIMS

■ Alarm Set

Set Alarm
This option allows you to set an alarm to ring at a specific time.
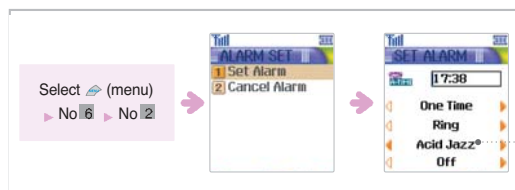
Scroll to time Setting by pressing to enter a time.
Everyday: An alarm rings everyday at a set time.
Once alarm: An alarm rings at once at a set time.
Alarm setting mode.

Once an alarm has been set, you can see the Alarm Icon ▣ on the display.
To stop the alarm when it rings, open the folder and press any key.

Cancel Alarm
Deactivates the alarm.
The Alarm Icon (▣) disappears.

> **Note** In Manner Mode, the phone vibrates when the that the alarm rings is reached.

PIMS

■ Memo Box

Add
You can save about 10 memos.

Select ✎ (menu)
▶ No 6 ▶ No 3
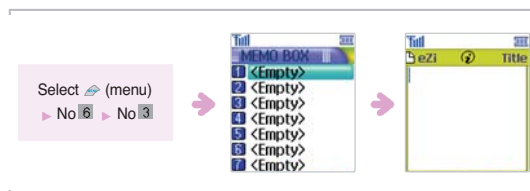
Edit and Delete
You can edit and delete your memos.
For text input mode, see page 59.

■ Calculator
You can perform addition, subtraction, multiplication and division computation.

Number input
▶ Symbolic input ▶
Number input
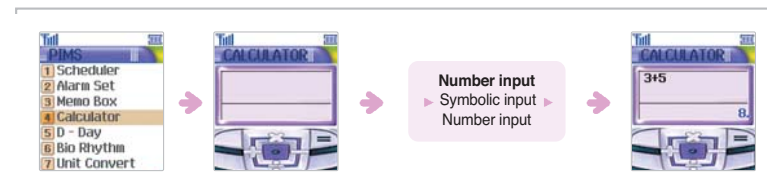
When you have finished, press   to exit.

Note Pressing the Cancle key more then 1 second clears the display, while briefly press the key clear only one figure.

PIMS

■ D-Day

Once entering important schedules, you can check the remaining or elapsed time for the schedule.

Add
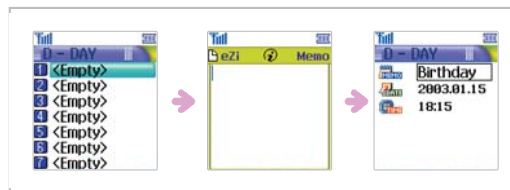
Scroll through the options using ⊠ and then enter necessary information. For text input mode.

D-Day Check/Add/Modify/Delete

After entering D-Day, you select any submenus you want can to add/modify/delete it.

■ Bio Rhythm

Upon entering birthdays, you can check the corresponding bio rrhythms.

Select ✍ (Menu)
► No.6 ► No.6
► No.1
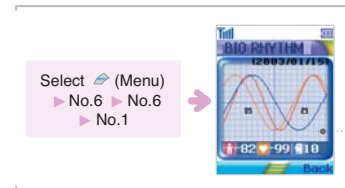
Red Curve : Physical rhythm shows your body's Physical state.
Orange Curve : Emotional rhythm shows your feeling or the condition of your nervous system.
Blue Curve : Intellectual rhythm is in connection with brain activity.

These states are also shown as a numerical value at the bottom of the screen.

By pressing ⊠ or ⊠ , you can check the Biorhythm of a day you specify.

With Friend : Allows you to check another persons biorhythm on a same day.
Special Day : Allows you to check the biorhythm of a specific day.
Setup : Before checking any biorhythm, you must enter your birthday and another persons if using the "with friend" option

Scroll through the menu by pressing ⊠ or ⊠ , enter a birthday in the order of Year ➔ Month ➔ Day.

PIMS

■ Unit Convert

This option allows you to convert from one type of unit to another.

Select ✎ (menu)
► No 6 ► No 7
► No 2

Type of conersion

Number input
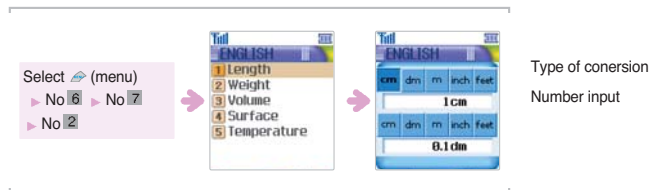
- Select the type of conversion by pressing ☒ or ☒ :
Length, Weight, Volume, Area, Temperature

■ World Time

You can check the current time in various countries.
Select this option by pressing .

Select ✎ (menu)
► No 6
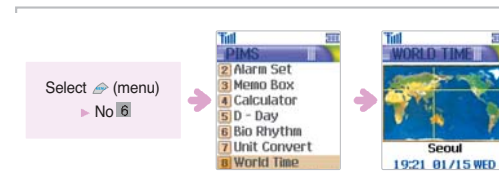
Camera

Camera

■ Operation Method

You can take pictures, using the camera module embedded in your phone.
You can send photos to other people and use them as the background images.

Reverse effect: Allows you to rotate photos 180°.
Brightness: Allows you to adjust the brightness of photos.
Size: Allows you to adjust the size of photos.

Press this icon to take a picture.

■ Photo Shot

You can take a picture, using the captured image appearing on the display.

Select ✎ (menu)
► No 7 ► No 1
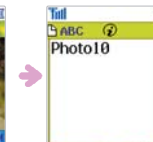
Note When you press the shutter, the shutter sound is heard.
In Manner Mode, the shutter sound is heard.
For text input mode, see page 59.

Camera

Save
You can set the options before taking a picture.

Image Size: Sets the image size to one of SQCIF 128*96, VGA 640*480 and QVGA 320*240.
Timer Setting: Selects the delay time at 10 seconds, or after 10 seconds.
Screen Effects: Allows you to apply the tone you want to use. You can take a picture with various special effects.

■ **Serial Shot**

With the same method as general photo shot, you can take pictures successively.
Take pictures after setting the option on the display by pressing the button on the side of the phone and the Navigation key.
You can set the options.

Image Size: Sets the image size to one of SQCIF 128*96, VGA 640*480 and QVGA 320*240.
Shot Number: Sets the number of pictures you want to take. (Select one of the successive 3 and 6 shots.)

Camera

■ Motion Shot

You can record motions for a short time.

Select ✎ (menu)
▶ No 7 ▶ No 3
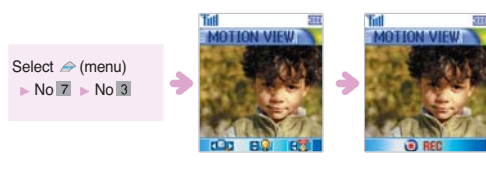
1. Press the ✎ key to record a motion.
2. After the recording has been finished, enter a title and save it. (Pressing the Save key will save your clip in the Multimedia Box.)

Note 1. In recording a motion, no sound is recorded.
2. When you use thie feature, the battery will be quickly consumed.

■ Sticker Shot

Select ✎ ▶ No.7 ▶ No.4 ▶ Select a background ▶ Take a picture ▶ Title input ▶ Save

■ Photo Studio

Allows you to select and edit one of the images saved in Photo Box.
Select ✎ ▶ No.7 ▶ No.5

Camera

■ Photo Box / Motion Box

You can view the recorded pictures and motions. After viewing them, you can change the titles, delete the records and set the lock function.

Select ✎ (menu)
▶ No 7 ▶ No 7
▶ No 1

Edit: Allows you to change the title of the selected picture.
Delete: Allows you to delete the selected picture.
Lock function: Allows you to lock the selected picture. (Setting this lock function requires your password. After setting the lock function, you cannot view the records and change the titles.)

■ Setting

You can set the shutter sound and photo environment.
Select ✎ ▶ No.7 ▶ No.9 ▶

Lock Photos
You can prevent other person from viewing the content in your photo mailbox.
Select ✎ ▶ No.7 ▶ No.9 ▶ No.2 ▶ Enter Password ▶ Lock or Unlock ▶ O.K

Lock Motions
You can prevent other person from viewing your motions.
Select ✎ ▶ No.7 ▶ No.9 ▶ No.3 ▶ Enter Password ▶ Lock or Unlock ▶ O.K

Game

Game__ Select ✎ (Menu) →Select "Game"

Enjoy the game!
Basically, four games such as Jump Jump, Prince Princess, and Space Ball are provided.

Start: begins a new game.
Stage: begins a game at the level you want.
Key Info.: Explains the key operation.
Rank: Shows the highest score.

➤ Scroll through the menu by pressing ✉ and then select the option by pressing ✎ .

Note Playing a game will quickly consume the battery.

Internet __ Select ✎ (Menu) →Select "Internet"

With the WAP preview function you can conveniently connect to Shows the Home.net.

■ Home
Shows the Home.

Internet

Internet

■ Bookmarks

By adding the pages you want to Favorites, you can save time and easily connect to the pages.

Add

Edit

➤ Scroll through the menu by pressing ✉ and then select the option by pressing 🖉 .

■ Go to URL

You can enter a new URL to move to corresponding webpage.

- Scroll through the menu by pressing or and select the option you want, and then press OK key.
- For URL input mode, see page 51.
- Pressing the OK key will move to the related webpage.

Internet

■ Setting

You can select this feature, as the WAP network function.

GPRS
1. Profiles : Indicates the name of Internet Service Provider (ISP) you want. You can add (a) new service provider(s) if necessary. Several service providers are basically set in your phone.

1. Profile Name : Indicates the name of your ISP.
2. Homepage : Indicates the homepage address of your ISP.
3. APN : Access Point Name
4. IP Address : Indicates the IP address of your ISP.
5. Login : Allows you to log in with your assigned ID.
6. Password : Allows you to enter your assigned password.
7. Access Type : Allows you to select one of the GPRS and GSM service.
8. Response Time : Informs you of whether the connection is successful or not. You can set the time as you want.

Save History

By pressing or , you can keep the visiting records in the memory of phone.

■ History

If you set to Save History when opening a URL, your phone will record up to 10 webpages. The latest record is recorded first.

List
You can select a URL using the menu. Scroll to the webpage you want by pressing or :

Open a new URL: Allows you to directly connect to the webpage, without the need to press the location assigning button.
Edit name: Allows you to edit names. For text input mode, see page 51.
Edit address: Allows you to edit webpages.
Delete: Allows you to delete webpages.
Add to Favorites: Allows you to add webpages to Favorites.

Clear
You can clear the information saved in the memory
The confirmation message will be again displayed. At this time, the information will be deleted if you select the OK key, while the deletion is cancelled if selecting the Cancel key.

Safety Information _

Password Input
There are several passwords that are used by your phone and its SIM card. These passwords help you protect your phone against unauthorized use.

Phone Password
The phone password is used for unlocking the keys, deleting all Phonebook entries, restoring the factory setting, and locking or unlocking the phone. If the Phone Lock feature is enabled, you must enter the password each time turning the phone on.

This password can be used to avoid unauthorized use of your phone. The password is usually preset to "0000'.

PIN Code
PIN(Personal Identification Number)code protects your SIM card against unauthorized use. The PIN code is usually supplied with the SIM card. When the PIN code request is enabled, the code is asked each time the phone is switched on.

If you key in incorrect PIN code three times in succession, enter the PUK code and then press the OK key. When you enter a new PIN code, enter a new password two times and then press the OK key.

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PIN2 code

Some SIM cards are provided with PIN2 code. To use a function, this code may be required. The use of this code requires the support of the SIM card.

If you key in an incorrect PIN2 code three times in succession, enter the PUK 2 code and then press the OK key. When you enter a new PIN2 code, enter a new password two times and then press the OK key.

PUK code

The PUK (Personal Unblocking Key) code is the one used for changing a blocked PIN code. This code is usually supplied with the SIM card. If you have no PUK code, use the one by connecting to your local service provider.

If you key in an incorrect PUK code ten times in succession, you cannot use the SIM card any more. You must obtain a new card. As the PUK code cannot be changed, contact your service provider if you forget the code.

PUK2 code

The PUK2 code, supplied with some SIM cards, is required to change a blocked PIN2 code. If you key in an incorrect PUK2 code ten times in succession, you cannot use the functions requiring the PIN2 code. Contact your service provider for a new card. You cannot change the PUK2 code. If you lose the code, contact your service provider.

Barring Password

The 4-digit barring password is required when you use the Call Barring function. You can obtain the password from your service provider when you subscribe to this function.

Safety Information

Using the Batteries

The battery provided with the phone is a Lithium standard battery.

Precautions When Using Batteries

- Never use any charger or battery that is damaged in any way.

- Use the battery only for its intended purpose.

- If you use the phone near the network s base station, it uses less power; talk and standby times are greatly affected by the signal strength on the cellular network and the parameters set by the network operator.

- Battery charging times depend on the remaining battery charge and the type of battery and charger used. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and standby time) is noticeably shorter than normal, it is time to buy a new battery.

- If left unused, a fully charged battery will discharge itself over time.

- Use only approved batteries and recharge your battery only with approved chargers. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more than a week, since overcharging may shorten its life.

- Extreme temperatures will affect the charging capacity of your battery: it may require cooling or warming first.

- Do not leave the battery in hot or cold places, such as in a car in summer or winter conditions, as you will reduce the capacity and life-time of the battery. Always try to keep the battery at room temperature. A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Li-ion batteries are particularly affected by temperatures below 0 C (32 F).

- Accidental short circuiting can occur when a metallic object (coin, clip or pen)causes a direct connection between the + and - terminals of the battery (metal strips on the back of the battery), for example when you carry a spare battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuit.

- Dispose of used batteries in accordance with local regulations. Always recycle. Do not dispose of batteries in a fire.

TIA Safety Information

Provided herein is the complete TIA Safety Information for Wireless Handheld phones. Inclusion of the text covering Pacemakers, Hearing Aids, and Other Medical Devices is required in the owner's manual for CTIA Certification. Use of the remaining TIA language is encouraged when appropriate.

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 Commissions (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)

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

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).

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 Position
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.

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 OFF immediately

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.

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.

Consumer Information on SAR

(Specific Absorption Rate)

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 (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on 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 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. Because the phone is designed to operate at multiple power levels 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.r The highest SAR value for this model phone when tested for use at the ear is 1.250 W/kg: PCS1900(0.768W/kg:GSM850) and when worn on the body, as described in this user's manual, is 0.576 W/kg:PCS1900(0.584W/kg:GSM850). (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements.) While there may be differences between 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 an 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/fccid after searching on FCC ID SBWVK530US.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at http://www.wow-com.com
*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.

FDA Consumer Update

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.

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.

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

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

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

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

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

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

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

What kinds of phones are the subject of this update?

The term "wireless phone" refers here to hand-held wireless phones with built-in antennas, often called "cell," "mobile," or "PCS" phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures well within the FCC's compliance limits.

What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years' follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

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.

How can I find out how much radio frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radio frequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and other federal health and safety agencies. The FCC limit for exposure form wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissue that absorb energy from the wireless phone and is set well below levels known to have effects.

Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for location the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

What has FDA done to measure the radio frequency energy coming form wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radio frequency energy (RF) exposure from wireless phones and other wireless hand sets with the participation and leadership of FDA scientists and engineers. The standard, "Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques," sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guideline.

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.

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

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

What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to 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.

What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI.

FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that that no interference occurs when a person uses a "compatible" phone and a "compatible" hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones
(http://www.fda.gov/cdrh/phones/index.html)
Federal Communications Commission FCC RF Safety Program (http://www.fda.gov/oet/rfsafety)
International Commission on Non-Ionizing Radiation Protection (http://www.icnirp.de)
World Health Organization (WHO) International EMF Project (http://www.who.int/emf)
National Radiological Protection Board (UK) (http://www.nrpb.org.uk)

Glossary

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Airtime
Actual time spent talking on the wireless phone. You are billed according to this reference.

Antenna
A device for transmitting or receiving signals. The size and shape of antennas is determined, in part, by the frequency of the signal they receive. Wireless phones and the base station must have antennas.

ALS (Alternate Line Service)
ALS provides the capability of associating two alternate lines with one SIM card. You can make and receive calls on either line as desired with this service.

Call Barring
Ability to restrict outgoing and incoming calls.

Call Divert
Ability to reroute calls to another mobile or fixed line.

Call Holding
Ability to put one call on standby while answering or making another call; you can then switch between the two calls, as required.

Call Waiting
Ability to inform users that they have an incoming call when engaged on another call.

CLI (Caller Line Identification) Service
Service allowing subscribers to view or block the telephone numbers of callers.

Conference Calling
Ability to establish a conference call involving up to five additional parties.

DTMF
(Dual-tone Multi Frequency) You send DTMF signals when you enter numbers by pressing the digit keys.

Hands-Free
A feature that permits a driver to use a wireless phone without lifting or holding the handset -an important safety feature for automobiles, tractors and most other motorized vehicles.

GSM (Global System for Mobile Communication)
International standard for cellular communication, guaranteeing compatibility between the various network operators. GSM covers most European countries and many other parts of the world.

LCD (Liquid Crystal Display)
Commonly used to refer to the screen display on the wireless phone.

LED (Light Emitting Diode)
Commonly used to refer to a small light on the wireless phone or on the Desktop Charger. The lights on the charger indicate that battery charging is taking place.

PIN (Personal Identification Number)
Security code that protects the phone against unauthorized use. The PIN is supplied by the service provider with the SIM card. It may be a four to eight-digit number and can be changed, as required.

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PUK (PIN Unblocking Key)
Security code used to unlock the phone when an incorrect PIN has been entered three times in succession. The eight-digit number is supplied by the service provider with the SIM card.

Roaming
Use of your phone when you are outside your home area (when traveling for example).

SIM (Subscriber Identification Module)
A card containing an integrated circuit. The circuit contains the information about the phone operation.

SMS (Short Message Service)
A network service sending and receiving messages to and from other persons without the need to call. The incoming messages immediately appear on the display, and you can edit, receive and send the messages.

Soft Keys
This key has the following functions:
● Varies according to the function that you are currently using.
● Is indicated on the bottom line of the display just above the corresponding key.

Auto Answer
When you cannot be reached, you can record your voice using this function.

Wireless
Receives signals. There is not need to connect using a physical connection, such as a metal wire (copper) or fiber optic cable.

For more details, contact your local service provider. There may be some differences between the phone and user's manual.

Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio Frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
▪ Reorient or relocate the receiving antenna.
▪ Increase the separation between the equipment and receiver
▪ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.