User Guide

PN-810

WELCOME

Thank you for choosing the Pantech PN-810 wireless handset. Developed by our dedicated team of top researchers, this product allows for high speed communication services, such as web browsing, and data services, and has an animated, graphic menu system for easy access to its many features. Among its many advanced features, the T9 text input mode makes it much easier to enter letters and type messages. Other included technologies are:

- Full graphic display of 9 text input lines and 1 icon line with variable font size.
- Easy to enter text using T9 text input mode.
- Use full QWERTY keyboard.
- Bluetooth Wireless Technology.
- Enhanced for web browsing & data services (i.e.; wireless internet access, WAP Browser)
- Animated Graphic User Interface (GUI) display compliant with CDMA2000 1X, EVDO.
- 260K TFT LCD.
- Mobile camera (2.1 Megapixel) with flash
- Navigation Key and 27 keys aligned for more convenience.
- Sophisticated speaker phone features.
- Additional text messaging and web browsing services in addition to authentication, call forwarding, call transfer, and call waiting.

IMPORTANT INFORMATION
This PN-810 user guide contains very important information about how to handle and use the product. Please read this manual thoroughly, pay attention to the warranty on the back page and be alert to the exclusions and limitations of your warranty, related to the use of unauthorized components.

TABLE OF CONTENTS

**CHAPTER 1
BEFORE
USING
YOUR PHONE**

This chapter provides important information about using the
PN-810 including:

INSIDE THE PACKAGE

HANDSET DESCRIPTION

DISPLAY INDICATORS

BATTERY USAGE

BATTERY HANDLING INFORMATION

MINISD CARD USAGE

This package should include all items pictured below. If any are missing or different, immediately contact the retailer where you purchased the cellular telephone.

Handset

Standard Battery

CD Manual
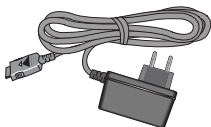
AC Travel Charger
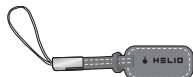
Strap
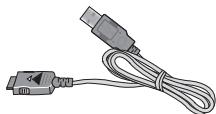
Data Cable

This phone is a tri-mode CDMA2000 1X, EVDO digital phone with camera and WEB browsing capabilities. The PN-810 weighs 4.84 oz. The dimensions are 1.95" x 4.27" x 0.95"

■ PHONE VIEW

- VOD Key
- Earpiece
- MOD Key
- Display Screen
- Navigation Keys
- Clear Key

- Camera Flash
- Camera Lens
- Speaker

- Earjack
- Voice Memo Key
- Volume Key
- Left/Right Soft Keys
- Send Key
- End Key
- MP3 Key
- Camera Key
- miniSD card
- International Function Key
- Lock Mode Key
- Microphone
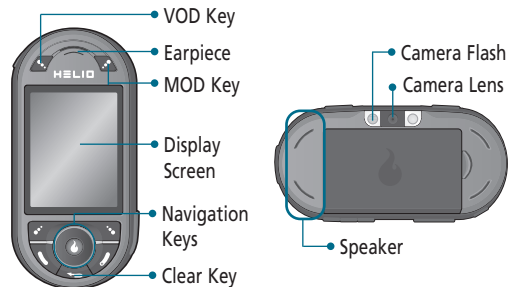
■ THE FUNCTION KEYS

(1) VOD Key

(2) Display Indicators - See page 12 for a list of icons.

(3) Text & Graphic area

(4) Soft Key Indicators - Shows the functions currently assigned to each soft key and displays some icons.

(5) Left Soft Key - Press to access the main menu or function displayed on bottom line of LCD.

(6) Send Key Press to make or receive a call. **Short Press:** Recent Calls.

(7) Clear - Press to clear a digit from the display or to return to the previous page.

(8) MOD Key

(9) OK Key

(10) Right Soft Key - Press to access contacts menu or function displayed on bottom line.

(11) End Key - Press to turn the phone on/off, to terminate a call or to return to the initial page.

(12) THE NAVIGATION KEYS
In Idle Mode - Press Up for Surf Down for Send Text/Pic, Left for Media and Right for Game.
Inside a menu - Within a menu, use to scroll through menu options, or to select a function displayed on the screen.

(13) Lock Key - Press and hold to enter lock mode.

(14) International Key - A long press shall display a plus "+".

(15) Shiftkeys - Enters upper case letters and symbols. You can either press the Shift key first and then the desired key or press both keys at the same time.

(16) Alt key - To type the number or symbol printed in orange at the top of a key, hold down the orange-colored Alt key and then press one or more letter keys. Or, press and release the Alt key and then press a letter key.

(17) Space bar keys - Enters a space.

(18) Backspacekey - deletes characters.

(19) Characterkey - Opens a set of characters and symbols during text writing.

(20) Enter key - Starts a new line when writing text.

■ DISPLAY INDICATORS

Signal Strength
Current signal strength: the more lines, the stronger the signal.

Roaming
Phone is out of home area.

Service Indicator
Indicates call is in progress or the phone cannot receive a signal from the system.

Calling   Call Lock   Voice Privacy

Standby   Privacy Mode

Message / MMS Message
New TEXT or voice message / New TEXT or voice MMS message.

SMS   Voice Msg   SMS+Voice Msg   MMS

SMS+MMS   MMS+Voice Msg   SMS+MMS+Voice Msg

Battery
Battery charging level – the more fill, the stronger the charge.

Full Charge   Empty

3G Mode
Phone is operating in 3G mode.

1X
Phone is in the 1x service area.

Data Service
Indicates internet services access is active.

Manner Mode
Phone is in manner mode.
To all the sound settings are off.

Airplane Mode
While in Airplane Mode, your phone's standby screen will displayed.

Anniversary
Anniversary is set, the idle screen appears.
The idle screen disappears if the anniversary expires or is disabled.

Alarm/Morning Call
Alarm/Morning Call is set, the idle screen appears.
The idle screen disappears if the alarm/morning call is in operation or disabled.

Ring Mode
Appears when a ringer is set as a ringer mode.

Ring   Vibrate the ring   Ring and vibrate

Dormant
Indicates your phone is in a dormant state during a data call. Your phone goes into Dormant mode when you have not had any activity on a page for some time - your connection is still active and you can make and receive calls.

Vibrate
Phone will vibrate when call is received.

Helio 3D Game Icon
Indicates Helio 3D Game operation key icon.

■ BATTERY INSTALLATION

As shown in the picture below, put the metal locators of the battery into the holes located in the bottom of the unit.

❶ Place the battery on the back of the handset and slide into place.

❷ Push the battery down until it locks into place.
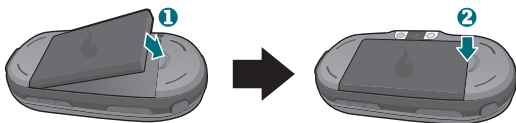
■ BATTERY REMOVAL

❶ Pull up the release latch, lift up the battery.

❷ Remove the battery from the handset.
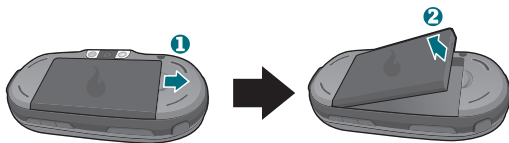
If the battery is not correctly placed in the compartment, the handset will not turn on and/or the battery may be detached during use.

■ BATTERY CHARGING

POWER CONNECTION

❶ Plug the AC Charger into a standard outlet.

❷ Plug the other end of the AC Charger into the bottom of your phone. The battery must be installed onto the phone.
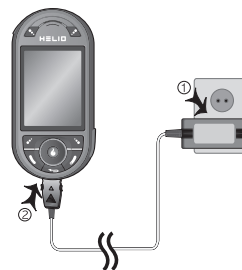
- You cannot operate the phone until it is powered on.
- Fully charge the battery before use.
- It is more efficient to charge the battery with the handset powered off.
- The battery must be connected to the phone in order to charge it.
- Battery operating time gradually decreases over time.
- If the battery fails to perform normally, you may need to replace the battery.

BATTERY USAGE TIMES

The operating time is subject to your handset usage and configuration.

Battery Capacity	DCS	PCS
Low Gain Mode	Up to 300 minutes	Up to 310 minutes
High Gain Mode	Up to 210 minutes	Up to 217 minutes

BATTERY STANDBY TIME

The operating time is subject to your handset usage and configuration.

Battery Capacity	DCS	PCS
STD 1200 mAh	228~231 Hours	212~248 Hours

NOTE These times are for a new battery. Usage and Standby time may decrease over time.

■ DO'S

- Only use the battery and charger approved by the manufacturer.
- Only use the battery for its original purpose.
- Try to keep batteries in a temperature between 41ºF (5ºC) and 95ºF (35ºC). If the battery is stored in temperatures above or below the recommended range, give it time to warm up or cool down before using.
- Completely drain the battery before recharging. It may take one to four days to completely drain.
- Store the discharged battery in a cool, dark and dry place.
- Purchase a new battery when the operating time of the current battery has decreased gradually over time.
- Properly dispose of the battery according to local laws.

■ DON'Ts

- Don't attempt to disassemble the battery – it is a sealed unit with no serviceable parts.
- Don't accidentally short circuit the battery by carrying it in your pocket or purse with other metallic objects such as coins, clips and pens. This may critically damage the battery.
- Don't leave the battery in hot or cold temps. Otherwise, it could significantly reduce the capacity and lifetime of the battery.
- Don't dispose of the battery into a fire.

■ USING MINISD CARD (OPTIONAL ACCESSORY)

The miniSD card stores sounds, images, photos and videos, music, and other files.

INSTALLING THE MINISD CARD

To install your miniSD card, use the following steps:

❶ With the miniSD card slot opened, and the gold contacts facing up, insert the miniSD card into the slot.

❷ Push the card in until it it clicks into place. Close the miniSD card slot.
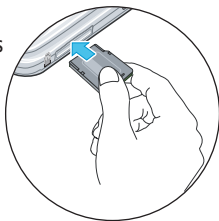
REMOVING THE MINISD CARD

To remove the miniSD card, use the following steps:

❶ Open the miniSD card slot. Use your thumb to press and release the miniSD card. It will pop-out to allow you to remove the card.

❷ Remove the card and close the miniSD card slot.

CHAPTER 2
BASIC
OPERATION
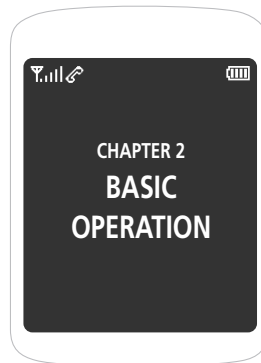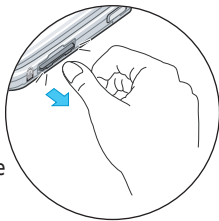
This chapter addresses and explains the basic features of your cellular telephone including:

TURNING THE PHONE ON / OFF
ACCESSING THE MENU
MENU SUMMARY
BASIC FUNCTIONS
DURING A CALL
MAKING AN EMERGENCY CALL

■ TURNING THE PHONE ON

❶ Slide the phone open, press and hold ⤓ , until **"HELIO"** Logo and animation appears and the wake up tone sounds.

📖
NOTE
• If your phone is locked, enter your 4-digit password to unlock your phone when "Enter 4-digit password" appears on the display.
• The default password is "0000".

■ TURNING THE PHONE OFF

❶ Slide the phone open, press and hold ⤓ , until **"HELIO"** Logo and animation appears and the tone sounds.

📖
NOTE
• Immediately change or recharge the battery when "Low Battery" appears on the display. Memory may possibly be damaged if the phone turns off due to the battery completely draining.
• Turn the phone off before removing or replacing the battery. If the phone is on, unsaved data may be lost.

Your phone can be customized via the menu. Each function can be accessed by scrolling with the Navigation Key or by pressing the number that corresponds to the menu item.

❶ To access the menu in idle mode, slide the phone open, press ▱▱ [MENU].

❷ Use the Navigation Key to scroll through the menu.

❸ To return to the previous page, press ⬅ . To exit the current menu and return to idle mode, press ⤓ .

❹ Press the Navigation Key and then press ◉ , to enter a function when its main page is displayed or press its assigned number to have direct access to the function.

📖
NOTE
Hotkey
In idle mode, move the Navigation Key as follows to access these functions:

• ◉ **:** SURF
• ◉ **:** Send Text/Pic
• ◉ **:** Game
• ◉ **:** Media

MAIN MENU	2ND DEPTH	3RD DEPTH	4TH DEPTH
1. Customize	1. Rings		
	2. Download Rings		
	3. Screens		
	4. Call Screens		
	5. Download Screens		
	6. HOT Screens		
	7. Download HOT		
	8. Settings		
2. Surf	1. Access Helio Portal		
3. Snap	1. Camera		
	2. Video Camera		
	3. Photo Album		
	4. Video Album		
	5. Settings		
	6. Print Photos		
	7. Memory Info	1. Internal	
		2. External	
4. Video + Music	1. Video		
	2. Download Video		
	3. Music		
	4. Download Music		
	5. Memory Info	1. Internal	
		2. External	
	6. Settings	1. Backlight Duration	
		2. Play Time	
		3. Play Option	
5. Contact	Customer Care		
	Emergency		
	Helio UP		
	Information		
	My Number		
	Voicemail		

MAIN MENU	2ND DEPTH	3RD DEPTH	4TH DEPTH
6. Games	Download Game		
7. Plan	1. Calendar		
	2. Wake-up Call		
	3. Alarm		
	4. Calculator		
	5. World Time		
	6. Unit Converter		
	7. Notepad		
	8. Voice Memo		
	9. Stopwatch		
	10. Conect to PC		
	*.File Maneger		
	#.Memory Info		
8. Message			
9. Apps			

■ MAKING A CALL

❶ Slide the phone open, enter a phone number.

> **NOTE**
> **To modify the phone number you have entered:**
> • Erase one digit at a time by pressing ⟨▱⟩.
> • Erase the entire number by pressing and holding ⟨▱⟩.
> **To send a Text or Photo message to the phone number:**
> • Enter a part of the phone number, then press ⟨▱⟩ [MENU], select "Send Text/Pic or Send Email".
>   Please refer to page 113 or page 115 for more details on "Send Text/Pic or Send Email".

❷ Press ⟨▱⟩.
The indicator, 📞, appears on the display.

> **NOTE**
> • If "CALL FAILED" appears on the display or the line is busy, press ⟨▱⟩ or ⟨▱⟩.
> • If you activate the "AUTO REDIAL" function, the phone will automatically retry for 2 times. (Refer to page 55).
> • If "Enter Lock Code" appears on the display enter your 4-digit password to unlock your phone.

❸ To end a call, slide the phone closed or press ⟨▱⟩.

■ MAKING AN INTERNATIONAL CALL

Press and hold ⟨▱⟩. When "+" is displayed, enter the country and area codes, then complete the number and send the call.

■ CALLING A NUMBER FROM CONTACTS

Press ⟨▱⟩ [CONTACT] to access the directory.
Select the desired phone number and press ⟨▱⟩.

■ ANSWERING A CALL

❶ When your phone rings or vibrates, slide the phone open, press ⟨▱⟩ to answer the incoming call.
(Depending on your phone's settings, you may also answer incoming calls by opening the phone or by pressing any number key.)

> **NOTE**
> • To silence the ringer and ignore incoming calls, press ⟨▱⟩ [SILENT] and then press ⟨▱⟩ [IGNORE].
> • When you place or receive a call from stored phone numbers, both the name and phone number will be displayed.

❷ To end the call, slide the phone closed or press ⟨▱⟩.

■ SPEAKER PHONE

The speaker phone feature lets you hear audio through the speaker and talk without holding the phone.

To activate or deactivate the speaker phone during call, press ⟨▱⟩.

> **NOTE**
> The phone returns to normal (Speaker Phone Off) after ending a call or when the phone is turned off and back on.

■ ENTER LOCK MODE

❶ To lock the phone, slide the phone open, press and hold ✏ .

❷ To unlock the phone, press any function key (Except ✏ , numeric key, ⊙), then input your password.

■ 3-WAY CALLING

With 3-Way Calling, you can talk to two people at the same time. When using this feature, normal airtime rates will apply to the two calls.

❶ Slide the phone open, enter a number you wish to call and press 📞 .

❷ Once you have established the connection, enter the second number you wish to call and press 📞 .

❸ When you're connected to the second party, press 📞 again to begin your 3-Way call.

> **NOTE**
> If one of the people you called hangs up during your call, you and the remaining caller stay connected.
> If you initiated the call and are the first to hang up, all three callers are disconnected.

■ CALL WAITING

Notifies you of an incoming call when you are already on a call by sounding a beep tone and displaying the caller's phone number.
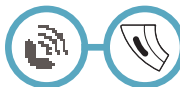
To answer another call while on the phone, press 📞 . This places the first call on hold. To switch back to the first caller, press 📞 again.

> **NOTE**
> Call Waiting is a system dependent feature. Please contact your service provider for details.

■ 2SEC/HARD PAUSE

Pauses are used for automated systems (i.e., voice mail, calling cards). Insert a pause after a phone number then enter another group of numbers. The second set of numbers is dialed automatically after the pause. This feature is useful for dialing into systems that require a code.

❶ To insert a pause, enter a phone number then press ✏ [MENU]. Select either a "2sec Pause" ("P") or a "Hard Pause" ("W").

❷ Press 📞 to dial or ⬓ [SAVE] to store the phone number.

> **NOTE**
> Please refer to page 36 for more details about storing a phone number.

■ ADJUSTING VOLUME

Adjust the volume of the ringer, key beep and speaker phone.

❶ Select one of the following.

- **Ring Volume:** Controls the ringer volume.
- **Receiver:** Controls the receiver volume.
- **Keypad:** Controls the keypad volume.
- **Effects:** Controls the effects volume.
- **Wake-up Call:** Controls the wake-up call volume.
- **Alert:** Controls the alert volume.
- **Power Up/Down:** Controls the power up/down volume.

❷ Adjust volume and press ⓐ [SAVE] to save it.

NOTE   To adjust volume in idle mode, press side speaker key.

■ CALLER ID

Identifies callers by displaying their phone number.
If the caller's name and number are already stored in
your phone book, they will both appear.

NOTE   The caller ID information is stored in Call History.

■ MP3 PLAYER

Music Player is for playing MP3 files saved on the miniSD
Card. To display music list with the phone closed, press ▷Ⅱ
and select a music file with the Navigation Key, press ▷Ⅱ
[PLAY], then press ▷Ⅱ [PAUSE] or press ▷▷ [FFW] or
press ◁◁ [FRW] to select another MP3 file.
In order to stop the music player while it is playing with shell
closed, it is required to open the shell and press 🖉 .

NOTE   The MP3 Player can only play MP3 files recorded at 192 kbps or
less. Please consult the recorded source file for details.

■ USING FLASHLIGHT

This function allows you to use the phone's camera flash as a miniature
flashlight. To use this function, your phone must be in standby mode.

In standby mode, press and hold ✉ .

■ CALL LOG

Displays information about All Calls, Missed Calls, Received Calls, Dialed Calls and Rejected calls.

❶ Press ✎ .

❷ To see a list of the 40 most recent All Calls, Missed Calls, Received Calls, Dialed Calls and Rejected calls. If the number is already stored in your phone book, only the name appears. If the number is not stored, only the phone number appears.

> **NOTE** If you are in call logs, you may also navigate to the next or previous call logs (All Calls, Missed Calls, Received Calls, Dialed Calls and Rejected calls) by pressing the Navigation Key right or left.

❸ Press ✐ [MENU] to save a selected number or press ✎ [WRITE] to send a message

• **Save:** To save the number to a contact list.
• **Delete:** To delete a call log.
• **Delete All:** To delete all call logs.
• **Send Caller Info:** To send a caller information to someone else.

❹ To view details, press ◉ . To access options, press ✐ [MENU].

• **Save:** To save the number to a contact list.
• **Delete:** To delete a call log.
• **Send Caller Info:** To send a caller information to someone else.

> **NOTE** Call details include type of call, date, time and phone number.

■ AVAILABLE OPTIONS DURING A CALL

To display menu options during a call, press ✐ [MENU].

CONTACT LIST

To search or save the phone number in your contacts list.

Press ✐ [MENU] ▭ .

CALL LOG

To displays the list of call log.

Press ✐ [MENU] ▭ .

MUTE (UNMUTE)

Mutes the microphone while you are on a call so the other party cannot hear you when you speak.

Press ✐ [MENU] ▭ .

• To deactivate, press ✐ [MENU] ▭ .
• The phone will automatically unmute in Emergency Call or Callback mode.

3-WAY CALL

To call a second party during a call, dial the number or select it from the directory by accessing the menu during a call.

Press ✐ [MENU] ▭ .

SEND MESSAGE
Enables you to send a message (SMS) during a call.

Press 🖊 [MENU] 5 .

MY NUMBER
Enables you to see your phone number while on a call.

Press 🖊 [MENU] 6 .

RECORD CALL
Records the conversation for up to three minutes during a call.

Press 🖊 [MENU] 7 .

This 911 feature puts the phone in the Emergency Call Mode when you dial the preprogrammed emergency number, 911.
It also operates in the lock mode and out of the service area.

■ **911 IN LOCK MODE**

The 911 call service is available even in the lock mode.

❶ Enter "911" and press 📞 .

❷ The call connects.

> • When the call ends, the phone returns to the Lock Mode.

■ **911 USING ANY AVAILABLE SYSTEM**

The 911 call service is available even in the lock mode.

❶ Enter "911" and press 📞 .

❷ The call connects.

> • While the phone is in the emergency mode for 5 minutes, the phone can receive an incoming call from any available system. However it can't make a call.

📖 The 911 call is not recorded in the recent call list.
NOTE

MEMO

CHAPTER 3
MEMORY FUNCTIONS
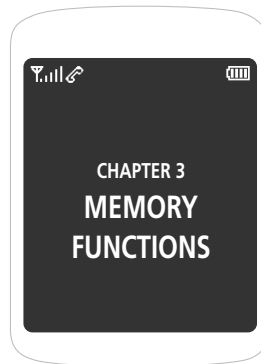
This chapter addresses memory functions including:

STORING A PHONE NUMBER
ENTERING LETTERS, NUMBERS & SYMBOLS
MAKING A CALL FROM THE PHONE BOOK

The phone book stores up to 1200 entries.

❶ Slide the phone open, enter phone # then press 🔲 [SAVE], and then choose "New Contact" or "Existing Contact". Press ⬤ to select.

❷ If "New Contact" is selected, enter a contact edit window.
If "Existing Contact" is selected, your contact list is displayed. Choose the entry to add the phone number to, then press ⬤ .

❸ Enter a name.
Please refer to page 37 for more details on entering letters, numbers & mbols.
To change the input mode, press 🔲 [Abc].
Press the Navigation Key down to select other options.

- **Contact Field:** First Name, Last Name, Graphic, Phone Number 1 ~ 5, , Ring, Default number, Email, Instant Message, MySpace, Notes, Group.
- **Phone Number Type:** Mobile, Home, Work, Fax, Other.
- If you entered a phone number or others, press 🗝 [Add...] to select options. (Phone/E-Mail/Address/Nickname/Title/ Company/Department/Website)

❹ To store the entry, press ⬤ [SAVE]. "Save changes?" and then press 🔲 [YES].

The input mode (T9 editor) will automatically be activated when necessary to enter letters and numbers. As shown below, there are 5 available modes ; Standard input mode (Abc), T9Word input mode (T9Abc), Numeric mode (123), Symbol mode (Sym) and korean mode (Korean).

The input mode indicator appears on the below right of the display when letters and numbers are entered. To select the desired input mode among the 5 modes below, press 🔲 [Abc], then enter letters and numbers.

The following illustrates the function assigned to each key in the Alpha Editor.

KEY	FUNCTION
🔲	**Abc** Press to change mode. [T9Abc][Abc][123][Sym][Korean]
🔲	**Next** Press to view the next matching word if the highlighted word is not the word you intended.
🔳	**Space** Press to accept a word and add a space.
🔲	**Caps Lock** Press to select a letter case of the standard text input or T9 text input mode. [Abc], [ABC] and [abc] indicate the standard text input. [T9Abc], [T9ABC] and [T9abc] indicate the predictive text input. Press and hold to change mode.
🔲	**Clear** Press to delete a character to the left of the cursor.

■ STANDARD INPUT MODE

Use the number keys to enter letters, numbers and characters.

❶ Enter letters using the key pad as follows:

Key Pad	Press 1 Time	Press 2 times	Press 3 times	Press 4 times	Press 5 times
2ABC	A	B	C	2	A
3DEF	D	E	F	3	D
4GHI	G	H	I	4	G
:	:	:	:	:	:
9WXYZ	W	X	Y	Z	9

Press ⬜ repeatedly, until the desired symbol appears (. , - ? ! ' @ : 1).
To change the input mode, press ⬜ [Abc].

❷ To enter a space, press ⬜ . The cursor will automatically move to the next column.

❸ Repeat until letters are entered.

❹ To delete one digit, press ⬜ .
If you press and hold ⬜ , it will delete letters entirely as well as entire numbers.

❺ To change from lowercase to uppercase, press ⬜ .

■ T9WORD INPUT MODE

The T9Word input mode incorporates a built-in-dictionary to determine a word based on the entered characters. A T9Word can be entered more quickly by pressing a key once per character.

❶ Select the T9Abc mode by pressing ⬜ [Abc].

❷ Press a digit key once to enter the character you want then enter all the characters to input the word you want.

❸ To view the next matching word, press ⬜ .

❹ To accept the matching word and enter a space, press ⬜ .

📝
NOTE

To enter a compound word:
- Enter the first part of the word then press ⬜ to accept it.
- Enter the last part of the word then press ⬜ to enter the word.

■ NUMERIC MODE

Allows you to enter numbers.

1 Press ✏ [Abc] and scroll down to "123" and press 🔘 to change to Numeric Mode.

2 To enter a number, press a digit key.

■ SYMBOL MODE

Allows you to enter symbols.

1 Press ✏ [Abc] and scroll down to "Sym" and press 🔘 to change to Symbol Mode.

2 Select the symbol you want to enter by pressing the corresponding digit key.

- Use the Navigation Key to view a different set of symbols. There are 8 sets of symbols.

■ KOREAN MODE

Allows you to enter korean characters.

1 Press ✏ [Abc] and scroll down to "Korean" and press 🔘 to change to Korean Mode.

2 To enter korean characters, press a keypad.

■ USING QWERTY KEYBOARD

Your phone is specifically designed QWERTY keyboard provides a superior typing experience on a small handheld for easy and comfortable text writing. You can use all of the phone functions with the keyboard either closed or open. When you open the keyboard you have the extra benefit of a full messaging keyboard.

The handheld includes a fully-functional QWERTY keyboard you can use to compose text for email messages, notes, and so on.

KEY	FUNCTION
Shift + letter	To type upper-case letters, hold down the Shift key and then press one or more letter keys. Alternatively, you can briefly hold down a letter key to capitalize a letter. Or, press and release the Shift key and then press a letter key.
Alt + letter	To type the number or symbol printed in orange at the top of a key, hold down the orange-colored Alt key and then press one or more letter keys. Or, press and release the Alt key and then press a letter key.
Space Key	Press the Space key to type a blank space.
Enter Key	Press the Enter key to insert a carriage return.
Clear Key	Press the Delete key to delete a character to the left of the text cursor.

📖 **NOTE** For best performance in low-light environments, your phone includes a backlight feature that can illuminate both the display and the keyboard so you can keep reading and typing.

MEMORY FUNCTIONS **MAKING A CALL FROM THE PHONE BOOK**

■ ONE-TOUCH/TWO-TOUCH DIALING

Ideal for frequently dialed numbers, this feature allows phone book entries to be dialed via the keypad with only one or two key presses.

ONE-TOUCH DIALING:

1~9: Press and hold the corresponding memory number for more than 1 second.

TWO-TOUCH DIALING:

10~99: Press the first digit and second digits of the memory number short and long respectively.

NOTE
- If no phone number is stored in the location entered, "Invalid speed dial" will appear on the screen.
- Press ▭ is used for One-Touch voicemail dial feature.

CHAPTER 4
MENU FUNCTIONS

This chapter addresses accessing the menu and using its functions and features to customize your phone.

CUSTOMIZE
SURF
SNAP
VIDEO+MUSIC
CONTACT
GAMES
PLAN
MESSAGE
APPS

■ RINGS

You can select a ringtone that will play when receiving a call. You can select from downloaded ringtones as well as the default ringtones.

❶ Press 🖉 [MENU] 1️⃣ 1️⃣.

❷ To select your desired ringer type.

- **Rings:** Select a live ringtone.
- **Bell Rings:** Select from your downloaded ringtones.
- **Freebies:** Select from the default ringtones.

❸ To play a select ringtone, press 🔽 [PLAY].
Press 🖉 [MENU], select one of the following options.

- **Delete:** Delete the selected live ringtone.
- **Delete All:** Delete all contents in the live ringtone list.
- **File Info:** Display the selected live ringtone information.

❹ To save it, press 🔵 [SET].

■ DOWNLOAD RINGS

Connects directly to the Helio Store, where you can download ringtones.

❶ Press 🖉 [MENU] 1️⃣ 2️⃣.

❷ Connecting to Helio Service.

■ SCREENS

Select the wallpaper image displayed in idle mode. In addition to the default images, you can select a downloaded image, Video Screen, Photos or Video Recordings as your screen.

❶ Press 🖉 [MENU] 1️⃣ 3️⃣.

❷ To select your desired image type.

- **Screens:** Select from downloaded screens or from the provided freebies.
- **Video Screens:** Select a Video Screen.
- **Photos:** Select from saved taken images.
- **Video Recordings:** Select from saved taken video clips.
- **Freebies:** Select from the default screens.

❸ To view/play a select image, press 🔽 [VIEW/PLAY].
Press 🖉 [MENU], select one of the following options.

- **Sort:** Sort the content list.
- **Rename:** Rename the selected content.
- **Delete:** Delete the selected content.
- **Delete All:** Delete all contents in the content list.
- **Lock On/Off:** Lock On/Off the selected content.
- **File Info:** Display the selected content information.

❹ To save it, press 🔵 [SET].

■ **CALL SCREENS**

Select the screen that will be displayed when receiving a call.
In addition to the default images, you can select a downloaded image,
Video Screen or Photos as the call screen.

❶ Press ✐ [MENU] ☐ ☐ .

❷ To select your desired image type.

- **Screens:** Select from downloaded screens or from the provided freebies.
- **Video Screens:** Select a Video Screen.
- **Photos:** Select from saved taken images.
- **Freebies:** Select from the default screens.

❸ To view/play a select image, press ☐ [VIEW/PLAY].
Press ✐ [MENU], select one of the following
options.

- **Sort:** Sort the content list.
- **Rename:** Rename the selected content.
- **Delete:** Delete the selected content.
- **Delete All:** Delete all contents in the content list.
- **Lock On/Off:** Lock On/Off the selected content.
- **File Info:** Display the selected content information.

❹ To save it, press ◉ [SET].

■ **DOWNLOAD SCREENS**

Connects directly to the Helio Store, where you can download screens.

❶ Press ✐ [MENU] ☐ ☐ .

❷ Connecting to Helio Service.

■ **HOT SCREENS**

Start H.O.T.™ (Helio On Top) screens.

❶ Press ✐ [MENU] ☐ ☐ .

❷ To select your desired downloaded image.

❸ To preview a select image, press ☐ [PREVIEW].
Press ✐ [MENU], select one of the following
options.

- **Delete:** Delete the selected content.
- **Delete All:** Delete all contents in the content list.
- **File Info:** Display the selected content information.

❹ To save it, press ◉ [SET].

NOTE It's Helio On Top. Multiple channels of dynamic content
(sports scores, music news, stock data, and more)
delivered automatically right to your screen!

■ DOWNLOAD HOT

Connects directly to the Helio Store, where you can download H.O.T. screen.

❶ Press ⌇⌇ [MENU] 1️⃣ 7️⃣.

❷ Connecting to Helio Service.

■ SETTINGS

Customizes your phone and optimizes performance through a variety of settings.

SOUND

Sets Vibration, Volume, Alerts, Sound Effects and Missed Calls.

VIBRATION

To select a Vibration Mode:

① Press ⌇⌇ [MENU] 1️⃣ 8️⃣ 1️⃣ 1️⃣.

② To set your desired Vibration Mode.

- Ringtones
- Vibration
- None
- Ring then Vib
- Ring and Vib

③ To save, press ⏺ [SET].

VOLUME

Controls the Ring Volume, Receiver, KeyPad, Effects, Wake-up Call, Alert and Power Up/Down volume.

① Press ⌇⌇ [MENU] 1️⃣ 8️⃣ 1️⃣ 2️⃣.

② To set your desired Vibration Mode.

- **Ring Volume:** Level 0 ~ Level 5.
- **Receiver:** Level 0 ~ Level 5.
- **KeyPad:** Level 0 ~ Level 5.
- **Effects:** Level 0 ~ Level 5.
- **Wake-up Call:** Level 0 ~ Level 5.
- **Alert:** Level 0 ~ Level 5.
- **Power Up/Down:** Level 0 ~ Level 5.

③ To save, press ⏺ [SAVE].

ALERTS

To setting an Alerts ringer type:

① Press ⌇⌇ [MENU] 1️⃣ 8️⃣ 1️⃣ 3️⃣.

② To setting an Alerts ringer type.

- **Call Connection:** To set Call Connection ring tone with left or right Navigation Key. (Off, Call Connection)
- **Minute Beep:** To set Minute Beep ring tone with left or right Navigation Key. (Off, Bell)
- **No Service:** To set Out-of-service ring tone with left or right Navigation Key. (Off, Bell)
- **Low Battery:** To set Battery Low ring tone with left or right Navigation Key. (Off, Low Battery1, Low Battery2)

③ To save, press ⏺ [SAVE].

SOUND EFFECTS

To select a sound effects ringer type:

① Press ✏️ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 1️⃣ 4️⃣ᵍʰⁱ .

② To set your desired sound effects ringer type.

- **Keypad:** To set key tone with left or right Navigation Key. (KeyClick, Tick, Arp, Henry, Off)
- **Slide:** To set Slide tone with left or right Navigation Key. (Mambo1, Mambo2, Mambo3, Off)
- **Menu:** To set menu select tone with left or right Navigation Key. (Menu Change 1, Menu Change 2, Menu Change 3, Off)
- **Confirm/Save:** To set Confirm/Save select tone with left or right Navigation Key. (Confirm/Save1, Confirm/Save2, Confirm/Save3, Off)
- **Cancel/Warning:** To set Cancel/Warning select tone with left or right Navigation Key. (Cancel/Warning1, Cancel/Warning2, Cancel/Warning3, Off)
- **Silent Mode:** To set Silent Mode select tone with left or right Navigation Key. (On, Off)

③ To save, press 🔘 [SAVE].

MISSED CALLS

To set a Missed Calls options:

SET ALERT

① Press ✏️ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 1️⃣ 5️⃣ᴶᴷᴸ 1️⃣ .

② To select alarm set mode with up or down Navigation Key.

- Mute / Every 2 min / Once after 2 min

③ To save, press 🔘 [SET].

ALERT TYPE

① Press ✏️ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 1️⃣ 5️⃣ᴶᴷᴸ 2️⃣ᴬᴮᶜ

② To select alarm tone with up or down Navigation Key.

- Alarm1 / Vibration

③ To save, press 🔘 [SET].

SCREEN
To select images to display on the main LCD:

OVERLAY
To select a Overlay Mode:

CALENDAR / CLOCK

① Press ✎⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 2️⃣ᴬᴮᶜ 1️⃣ 1️⃣ .

② To select Calendar/Clock set mode with up or down Navigation Key. You want to preview mode, press ◹ [PREVIEW].

   • Cal. 1mon 1 ~ Cal. 1mon 5, Cal. 2mon 1 ~ Cal. 2mon 4, Digital Clock 1 ~ Digital Clock 4 , Analog Clock 1 ~ Analog Clock 4, None

③ To save, press ◉ [SET].

DUAL CLOCK

① Press ✎⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 2️⃣ᴬᴮᶜ 1️⃣ 2️⃣ᴬᴮᶜ .

② The world map appears with the city, its date and time, and then select city with Navigation Key.

   • Left or Right Navigation Key: Move to city's situation.
   • Up or Down Navigation Key: Move to city's name.

③ To save, press ◉ [SET].

ANIMATED STICKER

① Press ✎⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 2️⃣ᴬᴮᶜ 1️⃣ 3️⃣ᴰᴱᶠ .

② To select Animated Sticker image with the Navigation Key.

③ To save, press ◉ [SET].

BANNER
To select a Banner Mode:

① Press ✎⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 2️⃣ᴬᴮᶜ 2️⃣ᴬᴮᶜ .

② To select Banner set mode with up or down Navigation Key. You want to preview mode, press ◹ [PREVIEW].

   • **Banner:** To select Banner with left or right Navigation Key. (Use, None)
   • **Text:** To enter a banner.
   • **Font Color:** To select a banner color with left or right Navigation Key.

③ To save, press ◉ [SAVE].

FONT
To select a Font Mode:

① Press ✎⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 2️⃣ᴬᴮᶜ 3️⃣ᴰᴱᶠ .

② To select Font set mode with up or down Navigation Key.

   1. English: Eng Font1/Eng Font2
   2. Korean: Kor Font1/Kor Font2

③ To save, press ◉ [SET].

BACKLIGHT

Backlights the LCD light, while the slide is closed and keypad light for easy viewing in dark places.

① Press ✍ [MENU] 1️⃣ 8️⃣ 2️⃣ 4️⃣ .

② To select Backlight set mode with up or down Navigation Key.

> **1. Display Duration:** 15 Seconds, 30 Seconds, 1 Minute, 3 Minute, 10 Minute
> **2. Display Brightness:** Level 1 ~ Level 5
> **3. Keypad Duration:** Slide Up, 15 Seconds, 30 Seconds, 60 Seconds, Off

③ To save, press ⏺ [SET].

CALL

Allows you to customize the call options.

ANSWER CALL ON

To select an answer call option:

① Press ✍ [MENU] 1️⃣ 8️⃣ 3️⃣ 1️⃣ .

② Select one of the following options with up or down Navigation Key.

> • **Slide Open**
> • **Open & Any Key**
> • **Open & Send Key**
> • **Send Key Only**

③ To save, press ⏺ [SET].

AUTO FUNCTIONS

To select an auto function option:

① Press ✍ [MENU] 1️⃣ 8️⃣ 3️⃣ 2️⃣ .

② Select one of the following options with up or down Navigation Key.

> **1. Auto Redial:** Automatically redials a call up to a set time interval. (On, Off)
> **2. Auto Headset:** If headset is connected, call is automatically connected. (On, Off)
> **3. Auto Speaker:** If Speaker is connected, call is automatically connected. (On, Off)
> **4. AutoRcvAfter 2Sec:** After 2 seconds, call is automatically connected. (On, Off)

③ To save, press ⏺ [SET].

CALL FORWARDING

The phone can divert incoming calls to another number if you are busy, not reachable or do not reply. You can also choose to divert all calls. A phone number field in which you enter a phone number to be used for diverting calls. Select an entry from the Contacts phonebook. Your incoming calls will not be diverted.

① Press ✍ [MENU] 1️⃣ 8️⃣ 3️⃣ 3️⃣ .

② Select one of the following options with up or down Navigation Key.

> **1. On/Off:** To select "On" or "Off" with Navigation Key.
> **2. Set Number:** Input a new call forwarding number.

③ To save, press ⏺ [SET].

BLOCK CALLS

When you attempt to make a restricted call.

① Press ✐✐ [MENU] 1️⃣ 8️⃣ 3️⃣ 4️⃣ and enter your password.

② Select one of the following options with up or down Navigation Key.

- **Outgoing Call:** To select "On" or "Off" with Navigation Key.
- **Incoming Calls:** To select "On" or "Off" with Navigation Key.
- **Contacts:**
  - -Block List: Press 🔽 [ADD], to add blocked phone number (Input Number, Contact List, Call Log). To delete blocked phone number, press ✐✐ [MENU], then select "Remove" or "Remove All".
  - -Block Setting: To select "On" or "Off" with Navigation Key.

③ To save, press 🔘 [SET].

VOICE PRIVACY

Enhances voice privacy and avoids tapping during a call.

① Press ✐✐ [MENU] 1️⃣ 8️⃣ 3️⃣ 5️⃣ .

② Select "On" or "Off" with up or down Navigation Key.

③ To save, press 🔘 [SET].

TTY

To turn TTY Mode on or off:

① Press ✐✐ [MENU] 1️⃣ 8️⃣ 3️⃣ 6️⃣ .

② Select one of the following options with up or down Navigation Key.

- **TTY Full**
- **TTY + Talk**
- **TTY + Hear**
- **TTY Off**

③ To save, press 🔘 [SET].

NETWORK

Allows you to customize the network options.

RECEIVE MODE

Select a Receive Mode based on the handset usage.

① Press ✐✐ [MENU] 1️⃣ 8️⃣ 4️⃣ 1️⃣ .

② Select one of the following receive mode with up or down Navigation Key.

- **Voice:** To receive a voice call.
- **Data:** To receive data when connected to PC.
- **Fax:** To function as a fax when connected to PC.

③ To save, press 🔘 [SET].

NETWORK MODE
To select a network mode option:

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 4️⃣ᴳᴴᴵ 2️⃣ᴬᴮᶜ .

② Select one of the following network mode with up or down Navigation Key.

- **1X only**
- **EVDO mode**
- **EVDO only**

② To save, press 🔘 [SET].

DEVICE
Displays the following information about your phone:
Memory Info, S/W Version, My Number, resets phone to default settings and On Close Timeout.

MEMORY INFO
To view "Internal" or "External" memory information.

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 5️⃣ᴶᴷᴸ 1️⃣ .

② Select "Internal Memory" or "External Memory" with left or right Navigation Key.

③ To return to the previous page, press 🔘 [OK].

S/W INFO
Displays the software version of your phone:

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 5️⃣ᴶᴷᴸ 2️⃣ᴬᴮᶜ .

② The software version appears.

③ To return to the previous page, press 🔘 [OK].

MY NUMBER
Displays the phone number of your phone:

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 5️⃣ᴶᴷᴸ 3️⃣ᴰᴱᶠ .

② The my phone number appears.

③ To return to the previous page, press 🔘 [OK].

RESET
Resets contacts or phone to default settings.

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 5️⃣ᴶᴷᴸ 4️⃣ᴳᴴᴵ .

② Select "Delete Contacts" or "Reset Defaults" with the Navigation Key.

③ Enter your password. (The default password is "0000".)

④ Read the message. (Initialize?/Reset to Default Settings?)

⑤ Press ✏️⁄ [NO] or ⬛ [YES].

ON CLOSE TIMEOUT
When closing (Portrait) slide or QWERTY slide, The process shall be continued for user's setting time.

① Press ✏️⁄ [MENU] 1️⃣ 8️⃣ᵀᵁⱽ 5️⃣ᴶᴷᴸ 5️⃣ᴶᴷᴸ .

② Select On Close Timeout time with up or down Navigation Key.

- 5 sec
- 10 sec

③ To save, press 🔘 [SET].

SECURITY
Prevents unauthorized use of your phone. The following settings can be restricted:

PHONE LOCK
Prevents the phone from being used without entering the password first.

① Press ✐✐ [MENU] 🔲 🔲 🔲 and enter your password. (The default password is "0000".)

② Press 🔲 "Phone Lock".

③ Select "Lock Now", "Lock at Power Up" or "Unlock" with up or down Navigation Key.

> • **Lock Now:** Lock the phone now.
> • **Lock at Power Up:** Not locked, but it is automatically locked when power is recycled.
> • **Unlock:** Do not lock the phone.

④ To save, press ⊙ [SET].

OUTSIDE KEY LOCK
Prevents the press key without entering the password first.

① Press ✐✐ [MENU] 🔲 🔲 🔲 and enter your password. (The default password is "0000".)

② Press 🔲 "Outside Key lock".

③ Select "On" or "Off" with up or down Navigation Key.

④ To save, press ⊙ [SET].

SET PASSWORD
To changes your 4-digitpassword.

① Press ✐✐ [MENU] 🔲 🔲 🔲 and enter your password. (The default password is "0000".)

② Press 🔲 "Set Password".

③ Enter your password. (The default password is "0000".)

④ Enter a new password and down Navigation Key.

⑤ Enter the new password again and press ⊙ [SET].

BLUETOOTH
Your phoneis compatible with devices that support theBluetooth headst and hands-free profiles. You may createand store 10 pairings within your phoneand connect toone device at a time.
The approximate communicationrange for Bluetooth wireless technology is up to 30 feet (10 meters).

Your phone is a Bluetooth V1.1 compatible device.This means you can use Bluetooth V1.1 headsets andBluetooth V1.0 hands-free devices with your phone.

POWER
The Power feature allows you to turn the Bluetooth function on and off.

① Press ✐✐ [MENU] 🔲 🔲 🔲 🔲 .

② Select "On" or "Off" then press ⊙ [OK] to save it.

DEVICE LIST

Device List is a list of the devices that have paired withyour phone via the Bluetooth functionality. Select thename of a device to enable it to work with your phone.

① Press [MENU] .

DISCOVERY MODE

When Discovery Mode is on, other Bluetooth devices inthe area can find your phone.

① Press [MENU] .

② Select "On" or "Off" then press ⓐ [OK] tosave it and wait in the idle mode.

📖 NOTE
1. After 60 seconds, the phone returns todiscovery mode "Off".
2. If my phone is in discovery mode on, remote bluetooth devices can scan my phone.

DEVICE SCAN

Device Scan allows you to scan for remote bluetoothdevices from the phone.

① Press [MENU] .

DEVICE NAME

Device Name allows you to change the name of aBluetooth device that is listed in your phone so you canmore readily recognize which device you want to enable.

① Press [MENU] .

② Enter a new name, press ⓐ [OK] to save it.

LANGUAGE

Selects the language in which letters are displayed on screen.

❶ Press [MENU] .

❷ Select either "English" or "Korean" with up or down Navigation Key.

❸ To save, press ⓐ [SET].

AIRPLANE MODE

Airplane Mode allows you to use many of your phone's features, such as Games, Voice Memos, etc., when you are in an airplane or in any other area where making or receiving calls or data is prohibited. When your phone is in Airplane Mode, it cannot send or receive any calls or access online information.

❶ Press [MENU] .

❷ Select "On" or "Off" with up or down Navigation Key.

❸ To save, press ⓐ [SET].

■ ACCESS HELIO PORTAL

Now you can access news, sports, weather, and e-mail from your phone. Accessing Mobile Web keeps you updated by providing access to up-to-date information such as news, sports, weather and stock quotes when you subscribe to Internet service with your service provider. Please contact your service provider for a list of available websites and service details.

■ BROWSER MENU

The browser menu contains various browser options. To access the browser menu, press [MENU] or press .

BOOKMARKS

Bookmarks allow you to store the address of your favorite Web sites for easy access at a later time.

ADD

When "Add" is selected from the Browser Menu, it allows you to save the recent Web site address.

VIEW ALL

When "View All" is selected from the Browser Menu, allows you to view and access bookmarked sites.

1. **MySpace:** To launches Helio MySpace web site.
2. **Video:** To launches Helio Video web site.
3. **Games:** To launches Helio Games web site.
4. **Rings:** To launches Helio Rings web site.
5. **Screen:** To launches Helio Screen web site.

MYSPACE

When "MySpace" is selected from the Browser Menu, it allows you to save the recent Web site address.

VIDEOS

When "Videos" is selected from the Browser Menu, it allows you to save the recent Web site address.

GAMES

When "Games" is selected from the Browser Menu, it allows you to save the recent Web site address.

RINGS

When "Rings" is selected from the Browser Menu, it allows you to save the recent Web site address.

SCREENS

When "Screens" is selected from the Browser Menu, it allows you to save the recent Web site address.

VIEW

SHOW ACTUAL SIZ

SHOW MINI MAP

TEXT ONLY

PAGE ZOOM

IMAGE ZOOM

IMAGE LIST

VIEW CERTIFICATE

TOOLS

SEARCH

FIND IN PAGE

INSERT MOBILE NU

SAVE SCREEN

GO UP

GO FORWARD

SETTINGS

HISTORY
Keeps a list of links to your most recently visited sites. The history list is available from the Browser Menu and the user may delete all stored pages from the history (Stores up to 50 sites). To navigate to a site, highlight it and press ⬤ , to connect web site.

■ CAMERA

Taking pictures with your phone's built-in camera is as simple as choosing a subject, pointing the lens, and pressing a button. You can activate the Camera Mode and take pictures when the phone is open.

TAKING A PHOTO IN IDLE MODE

❶ Slide the phone open, press and hold ⃞ to activate Camera Mode.

❷ Point the camera lens at your subject. You can check the photo framing through the main display screen.

❸ Press ⃝ [SNAP] or the side camera button ⃞ to take the photo.

❹ To save the picture, press ⃝ [SAVE]. The picture will be saved in "Photo Album". To go back to idle mode without saving the picture, press ⃠ . To send the picture to someone, press ⃞ [SEND].

❺ Press ⃞ [MENU], to access the taken picture's other options.

> **Helio Up:** To upload picture to Helio Screen web site.
> **Send Message:** To send a picture message.
> **Send Email:** To send a Email.
> **Set As Screen:** To assign to display for idle screen.
> **Set As Call Screen:** To assign to display for call screen.
> **Set As Contact Pic:** To assign to display for contact's ID.
> **Enter edit mode:** To launches Helio Screen web site.

TAKING A PHOTO THROUGH THE MENU

❶ Press ⃞ [MENU] ⃞ ⃞ .

❷ Point the camera lens at your subject. You can check the photo framing through the main display screen.

❸ Press ⃝ [SNAP] or the side camera button ⃞ to take the photo.

❹ To save the picture, press ⃝ [SAVE]. The picture will be saved in "Photo Album". To go back to idle mode without saving the picture, press ⃠ . To send the picture to someone, press ⃞ [SEND].

❺ Press ⃞ [MENU], to access the taken picture's other options.

> **Helio Up:** To upload picture to Helio Screen web site.
> **Send Message:** To send a picture message.
> **Send Email:** To send a Email.
> **Set As Screen:** To assign to display for idle screen.
> **Set As Call Screen:** To assign to display for call screen.
> **Set As Contact Pic:** To assign to display for contact's ID.
> **Enter edit mode:** To launches Helio Screen web site.

CAMERA MODE OPTIONS
When the phone is open and in Camera Mode, several user options are available.

WHITE BALANCE

Press ◠ to directly adjust the white balance.
(Auto, Outside, Cloudy, Fluorescent, Bulb)

FLASH

Press ◠ to directly adjust the flash option.
(Auto, Off, On).

BRIGHTNESS

Press the Navigation Key left or right to directly adjust the brightness. The current brightness level appears at the bottom of the display screen.

ZOOM

Press the Navigation Key up or down to change the magnification. The current zoom level appears at the right side of the display screen.

ALBUM

Press ◠ [ALBUM] to view all the pictures you have taken. Only the pictures in "Photo Album" can be viewed.

UNDER ◠ [MENU] - 1. Camera Mode

To select a camera mode. (Photo, Video)

UNDER ◠ [MENU] - 2. Shot Mode

To select a Shot Mode. (Single, Auto Series 4cuts, Auto Series 6cuts, Auto Series 9cuts). If you taking a picture with the phone closed, to select a Shot Mode. (Single, Auto Series 4cuts, Auto Series 6cuts, Auto Series 9cuts, Split Series 4cuts, Split Series 9cuts, Split Series 16cuts)

UNDER ◠ [MENU] - 3. Resolution

To select a resolution for a picture.
(320X240, 240X320, 240X180)
If you taking a picture with the phone closed, to select a resolution for a picture. (1600X1200, 1280X960, 1024X768, 800X600, 640X480, 320X240, 240X320, 240X180)

UNDER ◠ [MENU] - 4. Quality

To select a picture quality. (Super Fine, Fine, Normal)

UNDER ◠ [MENU] - 5. White Balance

To select a white tone balance. (Auto, Outside, Cloudy, Fluorescent, Bulb)

UNDER [MENU] - 6. Flash

To activate the flash function. (Off, On, Auto)

UNDER [MENU] - 7. Timer

To activate the camera's timer function.
(Off, 5 sec, 10 sec)

UNDER [MENU] - 8. Effects

To select picture effects. (Normal, Gray, Sepia,
Negative, Solarze)

UNDER [MENU] - 9. Photo Frame

To select a resolution for a picture.
(No Frame, Heart 1, Beach, Hero, Bee, Baby, Mask, Cry,
Woman, Candy, Photo, Hill, Bear, Clown, Hula Dance,
Heart 2, Balloons, Devil, Rabit Ears 1, Rabit Ears 2,
Hawaii, Birthday)

UNDER [MENU] - *. Storage

To activate the storage function. (Internal, External)

UNDER [MENU] - #. Preview Mode

To activate the preview mode function. (Indicators
Only, Indicators+Crosshair, Crosshair Only, Hide All)

❶ Press [SAVE] to save camera option.

■ VIDEO CAMERA

Taking videos with your phone's built-in camera is as simple as
choosing a subject, pointing the lens, and pressing a button. You can
activate the Camera Mode and take videos when the phone is open.

❶ Press [MENU] .

❷ Point the camera lens at your subject. You can check
the video framing through the main display screen.

❸ Press ⓐ or the side camera button to take the
video.

❹ To stop recording, press ⓐ or .
To Pause/Resume recording, press [PAUSE/RESUME].

❹ To save the video, press ⓐ [SAVE].
The picture will be saved in "Video Album".
To go back to idle mode without saving the picture,
press .
To replay video, press [PREVIEW].

❺ Press [MENU], to access the taken video's other
options.

> **Helio Up:** To upload video to Helio Screen web site.
> **Send Message:** To send a picture message.
> **Send Email:** To send a Email.
> **Set As Screen:** To assign to display for idle screen.

VIDEO MODE OPTIONS
When the phone is open and in Video Mode, several user options are available.

WHITE BALANCE

Press ⟨⟩ to directly adjust the white balance.
(Auto, Outside, Cloudy, Fluorescent, Bulb)

FLASH

Press ⟨⟩ to directly adjust the flash option.
(Auto, Off, On).

ALBUM

Press ⟨⟩ [ALBUM] to view all the videos you have taken.

BRIGHTNESS

Press the Navigation Key left or right to directly adjust the brightness. The current brightness level appears at the bottom of the display screen.

ZOOM

Press the Navigation Key up or down to change the magnification. The current zoom level appears at the right side of the display screen.

UNDER [MENU] - 1. Camera Mode

To select a camera mode. (Photo, Video)

UNDER [MENU] - 2. Recording Type

To select a video recording type.
(Normal, MMS Movie, Idle Screen Movie)

UNDER [MENU] - 3. Resolution

To select a resolution for a video. (320X240, 176X144)

UNDER [MENU] - 4. Quality

To select a video quality. (High, Standard, Economy)

UNDER [MENU] - 5. White Balance

To select a white tone balance. (Auto, Outside, Cloudy, Fluorescent, Bulb)

UNDER [MENU] - 6. Flash

To activate the flash function. (Off, On)

UNDER [MENU] - 7. Timer

To activate the camera's timer function.
(Off, 5 sec, 10 sec)

UNDER [MENU] - 8. Storage

To select a saved video location. (Internal, External)

UNDER [MENU] - 9. Preview Mode

To activate the preview mode function. (Indicators Only, Indicators+Crosshair, Crosshair Only, Hide All)

❶ Press [SAVE] to save video option.

■ PHOTO ALBUM

In Review Mode you can view all the pictures you have taken, store selected images in your phone, send pictures to the Online Album, delete images and access additional picture options.

❶ Press [MENU] .

❷ Select saved Photo's Folder.
To access floder's options, press [MENU].

- **Rename:** To rename a selected folder.
- **Lock Folder:** To lock the selected folder.
- **Add Folder:** To add a new folder.
- **Delete Folder:** To delete a selected folder.

❸ In Review Mode, you can view all the pictures you have stored in folder.

❹ Select the picture with the Navigation Key and then press [VIEW] or press [CHECK]

❺ To access options, press [MENU].

- **Set As:** To select screen setting.
              (Screen, Call Screen, Contact Pic)
- **Send Message:** To send a picture message.
- **Helio Up:** To upload picture to Helio Screen web site.
- **Sort Files: -** Sort by (Date, Name, Size)
              - Sort Order (Descending, Ascending)
- **Copy:** To copy the selected picture to the other saved
              location or folders.
- **Move:** To move the selected picture to the other saved
              location or folders.
- **Delete:** To delete the current picture from your folder.
- **Rename:** To edit or rename the picture's title.
- **Lock:** To lock the selected picture.
- **Check All:** To check all pictures.
- **File Info:** Displays information of the selected picture.

■ VIDEO ALBUM

In Review Mode, you can view all the videos you have taken, store
selected videos in your phone, send videos to the Online Album,
delete videos and access additional video options.

❶ Press [MENU].

❷ Select saved Video's Folder.
    To access floder's options, press [MENU].

- **Rename:** To rename a selected folder.
- **Lock Folder:** To lock the selected folder.
- **Add Folder:** To add a new folder.
- **Delete Folder:** To delete a selected folder.

❸ In Review Mode, you can view all the videos you have
    stored in folder.

❹ Select the video with the Navigation Key and
    then press [PLAY] or press [CHECK]

❺ To access options, press ✍ [MENU].

- **Helio Up:** To upload video to Helio Screen web site.
- **Set As Screen:** To assign to display for idle screen.
- **Send Message:** To send a picture message.
- **Sort Files: -** Sort Type (Date, Name, Size)
  - **-** Sort Order (Descending, Ascending)
- **Move:** To move the selected video to the other saved location or folders.
- **Delete:** To delete the current video from your folder.
- **Rename:** To edit or rename the video's title.
- **Lock:** To lock the selected video.
- **Check All:** To check all videos.
- **File Info:** Displays information of the selected video.

■ **SETTINGS**

To select your camera settings:

❶ Press ✍ [MENU] ▭ ▭ .

- **When Slide Closed:** To select "Stop Preview" or "Continue Preview" with up or down Navigation Key.
- **Call Receiving:** To select "Call answer" or "No answer" with up or down Navigation Key.
- **Shutter Sound:** To select "Ready Sound(Cheese, Mute, Naughty Boy, Ready)" and "Shutter Sound (Sound 1 ~ Sound 3)" with up or down Navigation Key.
- **Voice Recording:** To select "Include" or "Not Include" with up or down Navigation Key.
- **Set Storage:** To select "Internal" or "External" with up or down Navigation Key.
- **Viewfinder:** To select "Shot Settings (Show all indicators, Hide indicators)" and "Crosshairs (Hide, Show)" with up or down Navigation Key.

❷ Press 🔘 [SET] to save option.

■ PRINT PHOTOS

The PN-810 comes equipped with a 2-megapixel built-in camera that allows you to print images directly to a printer using PictBridge technology. A USB cable must be connected between your phone and the printer before any printing can occur.

❶ Connect the USB cable between your phone and the USB connector on the printer (Printer must support PictBridge technology).

❷ Press ✍ [MENU] 3ᴰᴱꟳ 6ᴹᴺᴼ.

❸ Read the message and press ⓔ [OK].

■ MEMORY INFO

To view "Internal" or "External" memory information.

❶ Press ✍ [MENU] 3ᴰᴱꟳ 7ᴾꟴᴿˢ.

❷ Select "Internal Memory" or "External Memory" with the left or right Navigation Key.

❸ The memory information appears.

❹ To return to the previous page, press ⓔ [OK].

■ VIDEO

❶ Press 🖉 [MENU] 4ᴳᴴᴵ 1☜.

❷ Select one of the following options with up or down Navigation Key.

> **1. Playlists:** To play, add, rename or delete a playlists.
> **2. Videos:** To display all video lists.
> **3. Settings**
> -Play Time: To select "Unlimited", "30 min", "1 hr",
>   "1 hr 30 min", "2 hr" or "3 hr" with
>   Navigation Key, then press ⊙ .
> -Play Mode: To select "Normal", "Shuffle All", "Repeat
>   All" or "Repeat One" with
>   Navigation Key, then press ⊙ .

■ DOWNLOAD VIDEO

Connects directly to the Helio Store, where you can download videos.

❶ Press 🖉 [MENU] 4ᴳᴴᴵ 2ᴬᴮᶜ .

❷ Connecting to Helio Service.

■ MUSIC

❶ Press 🖉 [MENU] 4ᴳᴴᴵ 3ᴰᴱᶠ.

❷ Select one of the following options with up or down Navigation Key.

> **1. Playlists:** To play, add, rename or delete a playlists.
> **2. Artists:** To display all artist lists.
> **3. Albums:** To display all album lists.
> **4. Songs:** To display all song lists.
> **5. Genres:** To display all genre lists.
> **6. Settings**
> -Play Time: To select "Unlimited", "30 min", "1 hr",
>   "1 hr 30 min", "2 hr" or "3 hr" with
>   Navigation Key, then press ⊙ .
> -Play Mode: To select "Normal", "Shuffle All", "Repeat
>   All" or "Repeat One" with
>   Navigation Key, then press ⊙ .
> -Equalizer: To select "Auto" or "Genre 1 ~ Genre 5" with
>   Navigation Key, then press ⊙ .

■ DOWNLOAD MUSIC

Connects directly to the Helio Store, where you can download musics.

❶ Press 🖉 [MENU] 4ᴳᴴᴵ 4ᴳᴴᴵ .

❷ Connecting to Helio Service.

■ **SETTINGS**

BACKLIGHT DURATION

❶ Press 📟 [MENU] 4₆ₕᵢ 5ⱼₖₗ 1.

PLAY OPTION

❶ Press 📟 [MENU] 4₆ₕᵢ 5ⱼₖₗ 3ᴅᴇғ.

PLAY TIME

❶ Press 📟 [MENU] 4₆ₕᵢ 5ⱼₖₗ 2ₐʙᴄ.

Stores up to 1200 entries, each of which can be assigned to a group. Entries can be retrieved by name, phone number or group.

OR

NOTE

SERVICE NUMBER
- **Customer Care:** 611
- **Emergency:** 911
- **Helio UP:** *87
- **Information:** 411
- **My Number:** 000-000-0000
- **Voicemail:** 310-254-7103

■ NEW CONTACT
Adds a new entry.

❶ To add a new entry to the phone book, press [MENU] 5 JKL 1.

❷ To enter a name or number, use the Navigation Key to select the phone book field.

> - **Contact Field:** First Name, Last Name, Graphic, Phone Number 1 ~ 5, SpeedDial, Ring, Default number, Email, Instant Message, MySpace, Notes, Group.
> - **Phone Number Type:** Mobile, Home, Work, Fax, Other.
> - **Group Type:** None, Friends, Family, Work, Co-Workers, School, Other, New Group, Rename Group.
> - If you entered a phone number or others info, press [Add...] to select options. (Phone/Email/Address/Nickname/Title/Company/Department/Website)

❸ 3.1 To save the entry, press ⊙ [SAVE].
3.2 To return to the previous page, press.

NOTE
Please refer to page 37 for more details on entering letters, numbers & symbols.

■ VIEW DETAIL

Retrieves an entry by name and number, and calls the number by simply pressing ▭. You can review all the entries stored in your phone book list or find an entry quickly by entering all or part of a name.

❶ Press ▭ [MENU] ▭ .

❷ The list of names in your phone book is displayed alphabetically. Select entry with the Navigation Key.

❸ Press ▭ [MENU] ▭ or press ▭ [VIEW].
To display the entry's details.

❹ Press ▭ [MENU] to 1. Edit, 2. Send my name card, 3. Copy to Clipboard.
To call the selected number, press ⊙ [CALL].
To send a message, press ▭ [MSG].

■ EDIT CONTACT

❶ Press ▭ [MENU] ▭ ▭ .

❷ The list of names in your phone book is displayed alphabetically. Select entry with the Navigation Key.

❸ Press ▭ [MENU] ▭ .

❹ Press ▭ [MENU] to 1. Add more details, 2. Merge Contacts.

❺ To edit a entry, then save contact, press ⊙ [SAVE].

■ DELETE

❶ Press ▭ [MENU] ▭ ▭ .

❷ The list of names in your phone book is displayed alphabetically. Select entry with the Navigation Key.

❸ Press ▭ [MENU] ▭ .

❹ Read the message. (Delete "entry's name"?)

❺ Press ▭ [CANCEL] or ▭ [OK].

■ **SEND MY MAME CARD**
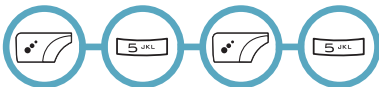
❶ Press ✎ [MENU] 5ᴶᴷᴸ ✎.

❷ The list of names in your phone book is displayed alphabetically. Select entry with the Navigation Key.

❸ Press ✎ [MENU] 5ᴶᴷᴸ.

❹ To move a Email editor.

■ **SORT CONTACTS LISTS**

❶ Press ✎ [MENU] 5ᴶᴷᴸ ✎.

❷ Press ✎ [MENU] 6ᴹᴺᴼ.

❸ To select "Online Status" or "Alphabetically" then press 🔘 to save it.

■ **SELECT MULTIPLE**

❶ Press ✎ [MENU] 5ᴶᴷᴸ ✎ 7ᴾᴼᴿˢ

❷ To marked entry with 🔘 [MARK/UNMARK].

❸ Press ✎ [MENU] to 1. Delete Marked, 2.Mark All, 3.Unmark All.

■ **DOWNLOAD GAME**

OR

❶ Press [MENU] or .

Press the [MENU] to access the following Option:
• **Move to Folder:**
• **Rename:**
• **Info:**
• **Delete:**
• **New Folder:**
• **Purchase History:**
• **Wishlist:**
• **Settings:**

■ CALENDAR

Sets an event reminder.

❶ Press ⌜⎎⌝ [MENU] ⌜7⌝⌜1⌝.

❷ Move the Navigation Key left, right, up or down to choose a date in the calendar and then press ⍟ . Press ⌜⎎⌝ [MENU] to 1. New Event, 2. New Anniversary, 3. Delete Range, 4. View List, 5. Alarm Settings, 6. Search Calendar or 7. Delete. Press ⌐⌐ [MONTHLY/ WEEKLY/DAILY] to exchange display mode.

❸ To set a new anniversary, press ⌜⎎⌝ [MENU] then select "New Anniversary". The title field is highlighted. Press the Navigation Key down to set the anniversary options.

TITLE

Use the keypad to enter a title in your anniversary.

Date

Use the keypad to change or enter the date.

ANNUALLY

Press ⌐⌐ to check annually set.

CONTENTS

Use the keypad to input an anniversary plan message.

❹ Press ⍟ [SAVE] to save it or ⌐⌐ [CLR] to return to the calendar.

❺ To set a new schedule, press ⌜⎎⌝ [MENU] then select "New Event". Select "Set Time", "Everyday", "Every Week", "Every Month" or "Every Year".

❻ The title/period field is highlighted. Press the Navigation Key down to set the schedule options.

TITLE

Use the keypad to enter a title in your schedule.

START TIME

Use the keypad to set a start time and ⌜⎎⌝ to select "AM" or "PM".

END TIME

Use the keypad to set an end time and ⌜⎎⌝ to select "AM" or "PM".

CONTENTS

Use the keypad to input an anniversary plan message.

ALARM ON

Use the Navigation Key to select alarm On/Off.

ALARM TIME

Use the keypad to set an end time and ⌨ to select "AM" or "PM".

❼ Press ⊚ [SAVE] to save it or ⬅ [CLR] to return to the calendar.

■ **WAKE-UP CALL**

Sets a Wake-up Call.

❶ Press ⌨ [MENU] ⌨ ⌨.

❷ The Set Wake-up Call field is highlighted. Press the Navigation Key down to set the Wake-up Call options.

SET WAKE-UP CALL

Use the Navigation Key to select Set Wake-up Call "Off", "Mon-Fri", "Mon-Sat", "Everyday".

NO HOLIDAY

Press ⌨ to check No Holiday.

ALARM TIME

Use the keypad to set an alarm time and ⌨ to select "AM" or "PM".

REPEAT

Use the Navigation Key to select repeat time "None", "2 times", "3 times", "4 times", "5 times".

INTERVAL

Use the Navigation Key to select interval time
"5 min", "10 min", "15 min".

RINGTONE

To set a "Ringtone" using the left or right Navigation Key. (Beep, Spring, Up Run Down, Hiphop 2005, Space Dragon, Monk, Parana, Samadhi, Rainyday, Shanghai Cruising, Smile Baby, Venus3, We Got Music, or video#)

VIBRATE

Use the Navigation Key to select vibrate type
"Ringtones", "Vibration", "Ring then Vib",
"Ring and Vib".

SCREEN

To set a "Screen" using the left or right Navigation Key.

❸ Press ⓐ [SAVE] to save it.

■ ALARM

❶ Press ⟦MENU⟧ 7 3.

❷ To set a new alarm, press ⟦NEW⟧.

❸ To select alarm options.

- **After 10 min:** To set alarm after 10 minutes.
- **After 20 min:** To set alarm after 20 minutes.
- **After 30 min:** To set alarm after 30 minutes.
- **After 1 hour:** To set alarm after 1 hour.
- **Set Time:** To set alarm time.
- **Everyday:** To set alarm time every day.
- **Every Week:** To set alarm time every week.
- **Every Month:** To set alarm time every month.

ALARM ON

Use the Navigation Key to select alarm on On/Off.

NO HOLIDAY

Press ⟦⟧ to check No Holiday.

DATE

Use the keypad to change or enter the date.

ALARM TIME

Use the keypad to set an alarm time and ⏻ to select "AM" or "PM".

MEMO

Use the keypad to input an alarm message.

❹ Press 🔥 [SAVE] to save it.

❺ Press ⏻ [MENU] to 1. Delete or 2. Delete All.

■ **CALCULATOR**

To access the calculator:

❶ Press ⏻ [MENU] 7 4.

❷ Follow the instructions below to calculate 8x6÷4-2.5=9.50

- Input 8.
- Press the Up Navigation Key (x).
- Input 6.
- Press the Down Navigation Key (÷).
- Input 4.
- Press the Right Navigation Key (-).
- Input 2 and press ⏻, to input (.).
- Press 5, 🔥 .
- Answer appears on the right side of the orange box below calculation.

❸ To reset, press ⏻ [AC].

- To change the displayed number from positive (+) to negative (-) and vice versa, press ⏻ [±].
- To view cal history, press ⏻ [HISTORY].

■ WORLD TIME

To display the time and date in pre-programmed cities:

❶ Press [MENU] .

❷ Select a city with the Navigation Key.

❸ The world map appears with the city, its date and time.

📖 **NOTE**   If daylight saving time does not apply, it may be different from the actual time during DST, press [DST].

❹ To return to the previous page, press .

■ UNIT CONVERTER

To access the unit converter:

❶ Press [MENU] .

❷ Select the desired convert unit item with left or right Navigation Key, and input number.

❸ To change the unit type (for example: m, cm...) with left or right Navigation Key.

- **cm:** Centimeter, Meter, Inch, Feet, Yard, Mile, Cheok, Gan, Jeong.
- **Cm²:** Pyeong, Square meter, Are, Square Foot, Square Yard, Acre.
- **Kg:** g, Kg, Ton, Grain, Ounce(oz), Pound(lbs), Don, Geun, Gwan.
- **Ml:** Hob, Dwoe, Mal, Cubic Cm, Cubic Meter, Liter, Cubic Inch, Cubic Foot, Cubic Yard, Galon.
- **C:** Celsius, Fahrenheit.

❹ Press [OK] to result appears on bottom below converter.

■ NOTEPAD

Your phone includes an internal notepad that can be used to compose and store reminders and notes. To compose a memo (there is a 220-letter limit):

❶ Press 🖉 [MENU] ⑦PQRS ⑦PQRS.

❷ Input a new text memo, press ⑤ [NEW].
(Please refer to page 37 for more details on entering letters, numbers & symbols.)

❸ Press ⑥ [SAVE] to save memo.

❹ The list of all memos, in saved order, is displayed.
Select a memo, press ⑥ [VIEW].
- Press 🖉 [MENU] to "Edit", "Delete", "Delete All".

 - To add a new memo, press ⑤ [NEW].

❺ The selected memo will appear.
To edit it, press ⑤ [EDIT], select "Edit" and input a new text memo, then press ⑥ [SAVE] to save edit memo.

■ VOICE MEMO

Voice Memo allows you to record a reminder message that can be up to remain time. To record a memo:

❶ Press 🖉 [MENU] ⑦PQRS ⑧TUV.

❷ Record a new voice memo, press ⑤ [NEW].

❸ To stop recording a memo, press ⑥ [SAVE] to save voice memo.

❹ The list of all memos, in saved order, is displayed.
Select a memo and press ⑥ [PLAY].

Press 🖉 [MENU] to "Delete", "Delete all", "Rename", "View File Info", "Send Message".

■ STOPWATCH

Simultaneously times up to 20 different events.
To operate the stopwatch:

❶ Press 🖉 [MENU] 🔼 🟦.

❷ To measure a time period.

- To start the stopwatch, press ⓐ [START].

- To pause it, press 🔽 [PAUSE].

- To resume it, press 🔽 [RESUME] or press 🖉
 [RESET] to reset it.

- To return to the previous page, press ◁━.

❸ To time up to 20 events at once:

- To start, press ⓐ [START].

- To stop a time period and continue measuring
 another one, press ⓐ [SAVE].

- To stop the second and continue measuring a third
 one, press ⓐ [SAVE].

- To measure up to 20 time periods, repeat the above
 steps.

- To stop the stopwatch, press 🔽 [PAUSE].

- To review the results, press ⓐ [VIEW].

- To return to the stopwatch, press 🔽 [CANCEL].

- To reset it, press 🖉 [RESET].

■ CONNECT TO PC

❶ Press 🖉 [MENU] 🔼 🟦.

❷ Enter your password.

❸ Connected your PC.

❹ To return to the previous page, press ◁━, then
 press 🖉 [YES].

■ **FILE MANEGER**

❶ Press ⟋⟍ [MENU] ⟋⟍ ⟍⟋ .

❷ Enter your password.

■ **MEMORY INFO**

To view "Internal" or "External" memory information.

❶ Press ⟋⟍ [MENU] ⟋⟍ ⟍⟋ .

❷ Select "Internal" or "External" with left or right Navigation Key.

❸ The memory information appears.

❹ To return to the previous page, press ⟨ ⟩ [OK].

■ **WHEN A NEW MESSAGE ARRIVES**

1 The following display appears when a new message arrives.

2 To display the message, press ⓐ [READ].
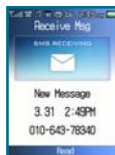
■ **MESSAGE**

1 Press ✍ [MENU]⌥.

> • **By pressing ✍ [MENU], you can choose from the following:**
> 1. **Sign Out All:**
> 2. **Setup e-mail accounts:**
> 3. **Move:**
> 4. **Change language:**
> 5. **Allow Korea Input:**
> 6. **Manage QuickText:**
> 7. **SW Version:**

■ **SEND TEXT/PIC**

To compose a new text message:

OR
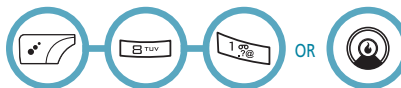
1 Press ✍ [MENU]⌥⌥ or ⓐ .

2 The "To" field is highlighted. Input the recipient phone number and press ⓐ .

> • **By pressing ⓐ [MENU], you can choose from the following:**
> 1. **Groups:** To select all the phone number in a group.
> 2. **Call Log:** To search for a phone number in the call logs.
> 3. **Enter Email:** To search for a phone number in the enter email.
> 4. **All Contact:** To search for a phone number in the all contact.

❸ The "Message Contents" field is highlighted.
Input a new text message and press ⓠ .

- **By pressing [MENU], you can choose from the following:**
  1. Insert Symbol: To insert a symbol.
  2. Insert Emoticon: To insert an emoticon image.
  3. Insert Quick text: To insert the written sentences
                           from the Quick Text list.
  4. Add wallpaper: To select "quotes", "leaves", "block-
                        sue", "martini", "lipstick", "Helions",
                        "hearts", "gradient", "bluefield" or
                        "balloon" with up/down Navigation
                        Key.
  5. Add Background Color: To select background color
                              from fill color chart.
  6. Change Text color: To select Text color from fill color
                            chart.

❹ The "ADD" field is highlighted.
To insert an image or music.

- **By pressing [MENU], you can choose from the following:**
  1. Add Picture: To attach a picture image.
  2. Add Sound: To attach a Sound file.
  3. Add Video: To attach a video file.
  4. Save as draft: To save a message to "Draft" folder.

❺ To send the Text message, press ⓐ [SEND].

■ SEND EMAIL
To compose a new Email message:

❶ Press [MENU] 8ᵀᵁⱽ 2ᴬᴮᶜ .
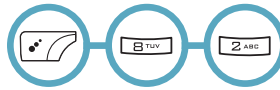
❷ The "From:" field is highlighted. Input the recipient
email and press ⓠ .

❸ The "To:" field is highlighted. Input the recipient
email and press ⓠ .

- **By pressing [MENU], you can choose from the following:**
  1. Lookup:
  2. Add attachment:
  3. Save to drafts:
  4. Add Cc:
  5. Add Bcc:
  6. Return to Mailbox:

❸ The "Re:" field is highlighted. Input the recipient email and press 📷 .

- **By pressing ✏️ [MENU], you can choose from the following:**
- **1. Insert symbol:**
- **2. Add attachment:**
- **3. Save to drafts:**
- **4. Add Cc:**
- **5. Add Bcc:**
- **6. Return to Mailbox:**

❹ The "Re:" field is highlighted. Input a new text message.

- **By pressing ✏️ [MENU], you can choose from the following:**
- **1. Insert symbol:**
- **2. Add attachment:**
- **3. Save to drafts:**
- **4. Add Cc:**
- **5. Add Bcc:**
- **6. Return to Mailbox:**

❺ To send the Text message, press 📷 [SEND].

■ **TEXT/PIC INBOX**
The Inbox manages received Text messages. To access:
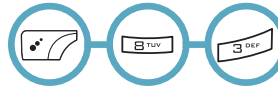
❶ Press ✏️ [MENU]⬛⬛ .

- **By pressing ✏️ [MENU], you can choose from the following:**
- **1. Write Message:** To edit a message.
- **2. Replay:** Type your reply.
- **3. Folder:** To select "Saved", "Sent", "Draft" or "Trash" with up/down Navigation Key.
- **4. Forword:** Input the phone number of the person you are sending the message.
- **5. Save Message:** To save the Text/Pic message in your phone.
- **6. Mark/Unmark:**

■ INSTANT MESSAGING

Instant Messaging feature can only be used with the support of the network operator or communities such as AIM, MSN, ICQ, GMail and Yahoo communities. For Instant Messaging users, a valid User ID and Password will be required in order to login and exchange messages as well as checking the online status.

The following options are available when offline:

- **Choose Your Community:** Allows you to select the default community. (Offline users only)
- **Profile Settings:** You can select or customize the profile containing the settings for connecting to the network. (Offline users only)
- **Community Settings:** Allows you to set the Sounds, Sort by, Auto Sign On, and Security Options.

The following options are available when online:

- **Community Settings:** Allows you to block messages from users on your block list. You can add or remove users to or from your block list.
- **Block List or Ignore List:** Allows you to block messages from users on your block list. You can add or remove users to or from your block list.

■ E-MAIL MESSAGES

Mobile Email allows you to access your Yahoo! Mail, AOL Mail, AIM Mail and MSN Hotmail accounts on your phone. So, now you can quickly and easily check your email while you're away from your computer. The compatible e-mail application that you use in the office or at home must use POP3 and IMAP4 e-mail servers.

> **NOTE** When sending e-mail, your phone may display the words Message sent. This is an indication that the e-mail has been sent by your phone to the e-mail server.
> This is not an indication that the e-mail has been received at the intended destination. For more details about e-mail services, check with your service provider.

■ OVER-THE-AIR SETTINGS SERVICE

To use wireless services such as MMS and EGPRS, you need to have proper connection settings on your phone. These settings may have already been set up by your service provider. If not, you may obtain the settings directly as an OTA message, and save them on your phone. For more information, contact your service provider.

You may be able to receive the connection settings for EGPRS, multimedia messages, synchronization, e-mail, and multimode browser. When you have received the connection settings as an OTA message, Connection settings received is displayed.

■ HELIO MAIL

To compose a new Helio Email message:

❶ Press [MENU] .

- **By pressing [MENU], you can choose from the following:**
  1. New email: To edit a message.
  2. Forword: Type your reply.
  3. Replay All: To select "Saved", "Sent", "Draft" or "Trash" with up/down Navigation Key.
  4. Check mail: Input the phone number of the person you are sending the message.
  5. Work offine: To save the Text/Pic message in your phone.
  6. View Folders:
  7. Sort by:
  8. View sender:
  9. Delete all:
  0. Select Multiple:
  *. Mark read/unread:
  #. Settings:

■ YAHOO!

❶ Press [MENU] .

❷ Input the "Yahoo! ID" and press .

❸ Input the "Password" and press .

■ AOL

❶ Press [MENU] .

❷ Input the "Screen Name" and press .

❸ Input the "Password" and press .

■ WINDOWS LIVE

❶ Press [MENU] .

❷ Input the "MSN ID" and press .

❸ Input the "Password" and press .

■ GMAIL

❶ Press [MENU] .

❷ Read the message, press .

- **By pressing [MENU], you can choose from the following:**
  1. New email: To edit a message.
  2. Forword: Type your reply.
  3. Replay All: To select "Saved", "Sent", "Draft" or "Trash" with up/down Navigation Key.
  4. Check mail: Input the phone number of the person you are sending the message.
  5. Work offine: To save the Text/Pic message in your phone.
  6. View Folders:
  7. Sort by:
  8. View sender:
  9. Delete all:
  0. Select Multiple:
  *. Mark read/unread:
  #. Settings:

Access your downloaaded games and applications. You can also specify settings for application such as Helio On Top(HOT).

❶ Press [MENU] .

CHAPTER 5
SAFETY AND WARRANTY
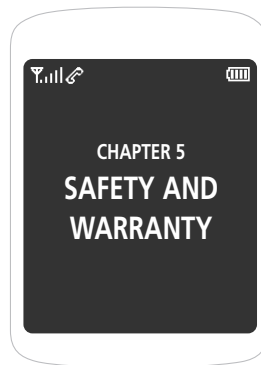
This chapter addresses the safety guidelines and precautions to follow when operating your phone. Before operating your phone, please be aware of all the safety details.
This chapter contains the terms and conditions of services and the warranty for your phone. Please review them thoroughly.

SAFETY INFORMATION FOR WIRELESS HANDHELD PHONES

SAFETY INFORMATION FOR FCC RF EXPOSURE

SAR INFORMATION

FCC HEARING-AID COMPATIBILITY (HAC) REGULATIONS FOR WIRELESS DEVICES

FDA CONSUMER UPDATE

PROTECT YOUR WARRANTY

12 MONTH LIMITED WARRANTY

Read This Information Before Using Your Handheld Portable Cellular Telephone

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 handheld 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 (C951).

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.

1* : American National Standards Institute.
2* : National Council on Radiation protection and measurements.
3* : International Commission on Nonionizing Radiation Protection.

DRIVING SAFETY

Talking on the phone while driving is extremely dangerous and is illegal in some states. Remember, safety comes first. Check the laws and regulations on the use of phones 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.

If you must use the phone while driving, please use one-touch, speed dialing, and auto answer modes.

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

WARNING: Failure to follow these instructions may lead to serious personal injury and possible property damage.

ELECTRONIC DEVICES

Most modern electronic equipment is shielded from RF energy. 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 :

- ALWAYS keep the phone more than six inches from your pacemaker when the phone is turned on.
- Do not carry the phone in a breast pocket.
- 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.

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 healthcare facilities when any regulations posted in these areas instruct you to do so. Hospitals or healthcare facilities may be using equipment that could be sensitive to external RF energy.

POSTED FACILITIES

Turn your phone OFF where posted notices so require.

OTHER SAFETY GUIDELINES

AIRCRAFT

FCC and Transport Canada Regulations prohibit using your phone while in the air. Turn your phone OFF 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, clearly marked. They include fueling areas such as gas 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's engine.

PRECAUTIONS

Your Handheld Portable Telephone is a high quality piece of
equipment. Before operating, read all instructions and cautionary
markings on (1) AC Adaptor (2) Battery and (3) Product Using
Battery.

- DO NOT use this equipment in an extreme environment
  where high temperature or high humidity exists.
- DO NOT abuse the equipment. Avoid striking, shaking or
  shocking. When not using, lay down the unit to avoid
  possible damage due to instability.
- DO NOT expose this equipment to rain or spilled beverages.
- DO NOT use unauthorized accessories.
- DO NOT disassemble the phone or its accessories. If service
  or repair is required, return unit to an authorized Pantech
  cellular service center. If unit is disassembled, the risk of
  electric shock or fire may result.
- DO NOT short-circuit the battery terminals with metal items
  etc.

WARNING!
- This product contains a chemical known to the State of
  California to cause cancer.
- This product contains a chemical known to the State of
  California to cause birth defects or other reproductive
  harm.

WARNING! READ THIS INFORMATION BEFORE USING

CAUTIONS

In August 1996 the Federal Communications Commission (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 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. Use only the supplied or an
approved antenna. Unauthorized antennas, modifications, or
attachments could impair call quality, damage the phone, or result
in violation of FCC regulations. Do not use the phone with a
damaged antenna. If a damaged antenna comes into contact with
the skin, a minor burn may result. Please contact your local dealer
for replacement antenna.

BODY-WORN OPERATION

This device was tested for typical body-worn operations with the
back of the phone kept 2.0 cm. from the body. To maintain
compliance with FCC RF exposure requirements, use only belt-clips,
holsters or similar accessories that maintain a 2.0 cm. separation
distance between the user's body and the back of the phone,
including the antenna. The use of belt-clips, holsters and similar
accessories should not contain metallic components in its assembly.
The use of accessories that do not satisfy these requirements may
not comply with FCC RF exposure requirements, and should be
avoided.

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

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 radiofrequency (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 1.6 W/kg. * Tests for SAR are conducted 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 0.724 W/Kg and when worn on the body, as described in this user guide, is 0.596 W/Kg. (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 SAR testing for Body-worn operation was performed with a belt clip that provided a 20mm separation. The User's Manual indicates that any holsters/clips used with this device should contain no metallic components.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure 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 PP4PN-810

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site 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 sub-stantial margin of safety to give additional protection for the public and to account for any variations in measurements.

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.
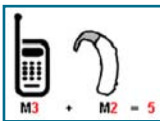
In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with "normal usage" while using their hearing aid with the particular wireless phone. "Normal usage" in this context is defined as a signal quality that is acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

For information about hearing aids and digital wireless phone
- Fcc Hearing Aid Compatibility and Volume Control
  http://www.fcc.gov/cgb/dro/hearing.html
- Gallaudet University, RERC
  http://tap.gallaudet.edu/DigWireless.KS/DigWireless.htm
- Self Help for Hard of Hearing People Inc. [SHHH]
  www.hearingloss.org/hat/TipsWirelessPhones.htm
- The Hearing Aid Compatibility FCC Order
  http://hraunfoss.fcc.gov/edocs_public/attachmatch/
  FCC-03-168A1.pdf

FDA

**U.S. Food and Drug Administration -
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 inter-agency 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 subject of the safety questions discussed in this document.

3. 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 far below the FCC safety limits.

4. 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 predisposed 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 neu-roma, 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.

5. 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.

6. 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.

7. How can I find out how much radiofrequency 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 radiofrequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/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 tissues 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 locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has FDA done to measure the radiofrequency energy coming from wireless phones ?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radiofrequency energy (RF) exposure from wireless phones and other wireless handsets 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 guidelines.

9. 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.

10. 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.

11. 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 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.

12. 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.fcc.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/)

Read your Warranty carefully, with the special consideration to paragraph seven of the Limited Warranty for your unit.

> "Warranty does not apply to... or to any product or part thereof which has suffered through alteration... mishandling, misuse, neglect or accident".

Many companies are making look alike accessories and in some cases, promoting that their product is equal to or better than the Pantech product. Be careful. Some of these products may not be compatible to use with your Pantech product and may damage the unit or cause it to malfunction. If service is required on your unit and it is determined that a non-Pantech accessory has created the problem with your unit, the Warranty will not apply. In addition, if the unit has already suffered irreversible damage by reason of a non-compatible accessory, the Warranty will be voided. To protect your Warranty, use only compatible accessories which cannot damage or interfere with the functioning of your Pantech product.

PANTECH

PANTECH WIRELESS, INC.
11240 Warland Drive, Cypress, CA 90630 (800) 962-8622

12 MONTH LIMITED WARRANTY

Pantech Wireless, Inc. (the Company) warrants to the original retail purchaser of this Pantech handheld portable cellular telephone, that should this product or any part thereof during normal consumer usage and conditions, be proven defective in material or workmanship that results in product failure within the first twelve (12) months period from the date of purchase, such defect(s) will be repaired or replaced (with new or rebuilt parts) at the Company's option, without charge for parts or labor directly related to the defect(s).

The antenna, key pad, display, rechargeable battery and battery charger, if included, are similarly warranted for twelve (12) months from date of purchase.

This Warranty extends only to consumers who purchase the product in the United States or Canada and it is not transferable or assignable.

This Warranty does not apply to:

(a) Product subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;

(b) Product whose mechanical serial number or electronic serial number has been removed, altered or defaced.

(c) Damage from exposure to moisture, humidity, excessive temperatures or extreme environmental conditions;

(d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;

(e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;

(f) Product damaged from external causes such as fire, flooding, dirt, sand, weather conditions, battery leakage, blown fuse, theft or improper usage of any electrical source.

12 MONTH LIMITED WARRANTY

The Company disclaims liability for removal or reinstallation of the product, for geographic coverage, for inadequate signal reception by the antenna or for communications range or operation of the cellular system as a whole.

To obtain repairs or replacement within the terms of this Warranty, the product should be delivered with proof of Warranty coverage (e.g. dated bill of sale), the consumer's return address, daytime phone number and/or fax number and complete description of the problem, transportation prepaid, to the Company by calling the number listed below or to the place of purchase for repair or replacement processing.

In addition, you may telephone us at (800) 962-8622, or email us at HandsetHelp@Pantech.com

THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY MUST BE BROUGHT WITHIN A PERIOD OF 18 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR AN SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. THE COMPANY SHALL NOT BE LIABLE FOR THE DELAY IN RENDERING SERVICE UNDER THIS WARRANTY OR LOSS OF USE DURING THE TIME THE PRODUCT IS BEING REPAIRED OR REPLACED.

No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

SAFETY AND WARRANTY

12 MONTH LIMITED WARRANTY

Some states or provinces do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.