# **User Guide**

VX3300

Ver. 1.0 2004. 08. 16

#### LIMITED WARRANTY STATEMENT

#### 1. WHAT THIS WARRANTY COVERS:

LG offers you a limited warranty that the enclosed subscriber unit and its enclosed accessories will be free from defects in material and workmanship, according to the following terms and conditions:

- (1) The limited warranty for the product extends for ONE (1) year beginning on the data of purchase of the product.
- (2) The limited warranty extends on to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.
- (3) This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.
- (4) The external housing and cosmetic parts shall not be covered under these limited warranty terms.
- (5) Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.
- (6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

#### 2. WHAT THIS WARRANTY DOES NOT COVER:

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping blown fuses spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was net notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- (5) Products which have had the serial number removed or made illegible.
- (6) The limited warranty is in lieu of all other warranties, express or implied either in fact or by operations law, statutory or otherwise, including, but limited to any implied warranty of marketability or fitness for a particular use.
- (7) Damage resulting from use of non-LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.

- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

#### 3. STATE LAW RIGHTS:

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG INFOCOMM INC. SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, RISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT. Some states do not allow the exclusive of imitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations 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.

#### 4. HOW TO GET WARRANTY SERVICE:

To obtain warranty service, please call the following telephone number from anywhere in the continental United States:

LG Infocomm Inc.

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201 James Record Road Huntsville, AL 35824 Tel. 1-800-793-8896 Fax. 1-800-448-4026 www.lgeservice.com

DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS. Please call or write for the location of the LGIC authorized service center nearest you and for the procedures for obtaining warranty claims.

#### SUBJECT

The VX3300 phone has been designed to operate on the latest digital mobile communication technology, Code Division Multiple Access (CDMA). This CDMA digital technology has greatly enhanced voice clarity and can provide a variety of advanced features. Currently, CDMA mobile communication technology has been commercially used in Cellular and Personal Communication Service (PCS). The difference between them is the operating frequency spectrum. Cellular uses 800MHz and PCS uses 1.9GHz. The VX3300 can operate on 1.9GHz or 800 MHz frequency, we usually call it dual-band phone. Also, VX3300 works on Advanced Mobile Phone Service (AMPS). We call it Tri -mode phone. This phone is the one of tri band Quad mode - 800Mhz CDMA, 1900Mhz PCS, 1500Mhz GPS.

The CDMA technology adopts DSSS (Direct Sequence Spread Spectrum). This feature of DSSS enables the phone to keep communication from being crossed and to use one frequency channel by multiple users in the same specific area, resulting that it increases the capacity 10 times more compared with that in the analog mode currently used. Soft/Softer Handoff, Hard Handoff, and Dynamic RF power Control technologies are combined into this phone to reduce the call being interrupted in a middle of talking over the phone.

Cellular and PCS CDMA network consists of MSO (Mobile Switching Office), BSC (Base Station Controller), BTS (Base station Transmission System), and MS (Mobile Station). The following table lists some major CDMA Standards.

CDMA Standard	Designator	Description	
Basic air interface	TIA/EIA-95A	CDMA Dual-Mode Air Interface 14.4kbps radio link	
	TSB-74	protocol and inter-band operations IS-95 adapted for	
	ANSI J-STD-008	PCS frequency band cdma2000 1xRTT Air Interface	
	TIA/EIA-IS2000		
Network	TIA/EIA/IS-634	MAS-BS	
	TIA/EIA/IS/651	PCSC-RS	
	TIA/EIA/IS-41-C	Intersystem operations	
	TIA/EIA/IS-124	Nom-signaling data comm.	
Service	TIA/EIA/IS-96-B	Speech CODEC	
	TIA/EIA/IS-99	Assign data and fax	
	TIA/EIA/IS-637	Short message service	
	TIA/EIA/IS-657	Packet data	
	IS-801	Position Determination Service (gpsOne)	
Performance	TIA/EIA/IS-97	Cellular base station	
	TIA/EIA/IS-98	Cellular mobile station	
	ANSI J-STD-018	PCS personal station	
	ANSI J-STD-019	PCS base station	
	TIA/EIA/IS-125	Speech CODEC	

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#### Introduction

#### **Highlights**

Congratulations! Your new mobile phone will change your way of communicating and is a compact, lightweight personal communication system with added features for the person on the go. Our advanced digital mobile communication technology allows you to do the followings.

- Main Chipset: MSM6050, Memory(128Mbits NOR Flash + 32Mbits PSRAM)
- Display: Main LCD(128 x 128 pixels, 0.162 dot pitch, 65K colors STN)
- CMX 3.x compliant (32 Poly)
- Large Phone Book: 499 x 5 fields
- Power Management IC: LDO's, Charger controller, Comparator etc.
- Voice Recording/Memo/Playback.
- E911(gpsOne)
- Browser: UP 6.2
- 3D Graphics GUI: Menu, Animations
- Instant Message.

#### **Important Information**

This user's guide provides important information on the use and operation of the phone. Please read all the information carefully prior to using the phone for the best performance and to prevent any anticipated damage to or misuse of the phone. Any unapproved change or modification will void your warranty.

#### **Check Accessories**

Your mobile phone comes with standard accessories of a Adapter and a rechargeable battery. Please make sure that those accessories are all included.

#### Before You Start

#### **Safety Instructions**

**WARNING!** To reduce the electric shock, do not expose your phone in high humidity areas, such as the bathroom, swimming pool.

**IMPORTANT!** Please read the SAFETY AND GENERAL INFORMATION on page 68 prior to using your phone.

### **FCC RF Exposure Information**

WARNING! Read this information before operating the phone

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

#### **CAUTION**

Use only the supplied or and approved antenna. Use of unauthorized antennas, modifications could impair call quality, damage the phone or result in violation of FCC regulations. Do not use the phone with the damaged antenna. If the damaged antenna comes into contact with the skin, a minor burn may result. Please contact your local dealer for replacement of the antenna.

#### **Body-worn Operation**

This device was tested for typical body-worn operations with the back of the phone kept 0.79 inches (2) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.79 inches (2) must be maintained between the user's body and the back of the phone, including the antenna, whether extended or retracted. Third-party belt-clips, holsters and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 0.79 inch (2) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

#### **Vehicle Mounted External Antenna (optional, if available.)**

A minimum separation distance of 7.9 inches (20) must be maintained between the user/bystander and the vehicle mounted external antenna to satisfy FCC RF exposure requirements.

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

#### FCC Part 15 Class B Compliance

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

interference that cause undesired operation.

### **Caution For Battery Use**

- Do not disassemble.
- Do not short-circuit.
- Do not exposure to high temperature : 60 (140)
- Do not incinerate.

# **Caring for Battery Use**

Must be recycled or disposed of properly

# **Caution For Adapter (Charger) Use**

- Using the wrong battery charger could cause damage to your phone and void your warranty may burst causing injury to person and damage.
- The charger or adapter is intended for indoor use only.
- The charger or adapter is intended for indoor use only.

Do not expose the battery charger or adapter to direct sunlight nor use it in any place of high humidity, such as the bathroom.

# **Getting Started**

### **Unlocking Your Phone**

If you received your Verizon Wireless VX3300 in the mail, you may need to unlock it before making calls.

1. Press the END/PWR Switch for 2 3 secs.

2. Highlight **Unlock** and press



3. Enter your four-digit lock code. For security purposes, the code will not be visible as you type.

**Note**: If you can't recall your lock code, try using the last four digits of your Social Security number, the last four digits of your Verizon Wireless Phone Number or 0000.

#### **Getting Help**

If you need assistance at any time, call Sprint PCS Customer Care at 1 888 211 4PCS

(4727) (in Southern California call 1-800 \* 15.2 OK can also dial from your activated Sprint PC \* \$ 6.00 1 in 1 to OK California dial

). A Sprint PCS Customer Advocate is available to assist you 24 hours a day. Getting to Know Your Phone—

#### **Getting to Know Your Phone**

### **Highlights**

Congratulations on the purchase of your Sprint PCS SP-510. This phone is lightweight, easy-to-use, reliable and offers many significant features:

- Roaming capability provides access to other PCS CDMA where Sprint PCS has implemented roaming agreements (page 10)
- Data/Fax feature offers wireless modem capabilities for your personal computer in digital mode (page 72)
- MiniBrowser provides Internet access in digital mode (page 61)
- Built-in Scheduler and Call Alarms remind you of events and important calls (page 51)
- Two-hundred Phone Book entrise store 800 phone numbers (up to 4 phone numbers per entry) (page 40)

- Graphical icons and text prompts inform you of messages, events and the status of your phone (page 7)
- A Mouse Key provides easy navigation through menu options (page 5)
- Assign one of twenty ringer tones to any Phone Book entry (page 46)

#### **View of Phone**

- 1. **END/PWR** Switch: Lets you power the phone on or off.
- 2. Antenna: Fixed antenna provides optimum reception for 800MHz/1900 MHz frequencies.
- 3. **Power On Indicator**: Illuminates red when the phone powers on or when you receive incoming calls. Flashes red when you have messages of scheduled alarms.
- 4. **Headset Jack**: Provides connection for an optional headset.
- 5. **Volume Control Keys**: Adjust the Ring Volume in the Main Menu or the Voice Volume during a call. The keys also scroll through mouths in the Calendar or pages in the MiniBrowser.
- 6. Mouse Key: Allows quick and easy scrolling through the menus.
- 7. **OK**: Lets you place a call, receive a call, end a call or select menu options.
- 8. CLR: Lets you clear an entry or back-up in the menu.
- 9. Folder: Lets you answer or end calls.

#### **Installing and Removing the Battery**

To install the battery, insert the bottom of the battery into the opening on the back of the phone. Then, push the battery down until the latch clicks.

To remove the battery, press down on the latch and remove the battery from the phone.

#### **Turning Your Phone On and Off**

To turn your phone on, move the On/Off Switch (near the antenna) to the ON position. Your phone performs a short self-test before letting you know it is operational.

If your phone does not turn on, make sure the battery is installed correctly and is adequately charged or has external power (via the AC Adapter, Cigarette Lighter Adapter or Hands-Free Car Kit).

To turn your phone off, move the On/Off Switch to the OFF position.

#### Main Menu

When your phone acquires Verizon Wireless Service, the Greeting (a banner of text), the current time and date and the Main Menu are displayed. If you are in a Verizon Wireless or authorized analog cellular provider's service area, you are ready to send and receive calls.

#### **Power Save Mode**

When the phone is in an area without service for 15 minutes, it stops searching for service and enters into the power Save Mode. When your phone activates this feature, Power Save is displayed on your screen. The phone automatically checks for service periodically or you can check manually by pressing any key.

#### **Menu Navigation**

The Mouse Key lets you scroll circularly through menus quickly and easily.



As you navigate through a menu, the options are highlighted (Highlighted Test Example). Select an option by highlighting it and pressing. The scroll bar at the right of the menu keeps track of your position in the menu at all times.

For example, if you want to view your last incoming call:

- 1. From the Main Menu, highlight Call Logs and press (It may already be highlighted.)
- 2. Press the Navigation Key down to highlight Incoming Log and press on

If you have received any calls, they are displayed on the screen.

### **Entering Characters Using the Keypad**(T9)

To enter a letter, punctuation or number when creating Phone Book or Scheduler entries, press the corresponding key until the desired character appears. By default, the first letter of a word is capitalized and following letters are lowercase. Characters in the following order:



After a character is entered, the cursor automatically advances to the next space after two seconds. You can also advance the cursor by pressing or entering a character not on the same key.

If you make a mistake, press left key to move the cursor left or **CLR** to erase a character. To clear the entire entry, press and hold **CLR** for two seconds.

# **Display Icons**

Display icons are the symbols your phone uses to communicate important information. They are as follows:

ICON	DESCRIPTION	
	Alarm	
(IIII)	Battery	
<b>Tail</b>	Antenna	
<u>&amp;</u>	In use	
<b>%</b>	No service	
<del>(</del> \$0)	Location On	
•	E911 only mode	
	Voice	
P	Voice Privacy	
u( <mark>Pl</mark> w	Vibrate	
R	Roaming	
<b>=</b>	TTY	
	SSI	
<b>3</b>	Ringer	
×.	Ringer off	
<b>5</b>	Text + voice	

# **Antenna**

The antenna on your VX3300 provides maximum reception without the inconvenience of extending of retracting it.

!!! WARNING - CHOKING HAZARD - ANTENNA MAY BECOME DISLODGED

Attempting to remove or repeated twisting of the antenna will loosened the materials securing it

into antenna. Once the antenna is loosened or removed, only an authorized Verizon Wireless

representative can restore the antenna's original integrity. Do not attempt to remove or twist the

antenna.

Signal Strength

The quality of each call you make or receive depends on the signal strength on your area. The number of

bars in the Signal Strength icon informs you of the current strength. The more bars, the stronger the signal.

**Battery Capacity** 

Your Verizon Wireless VX3300 is equipped with a Lithium Ion (LiIon) battery. It allows you to recharge

your battery before it is fully drained. The battery provides approximately hours of continuous digital talk

time or approximately 120hours of continuous digital standby time.

**Note**: Long backlight settings affect the battery's talk and standby times.

When the battery reaches 5% of its capacity, the battery icon blinks. When there is about one minute of

talk time left, the phone sounds an audible alert every 30 seconds and then powers down.

If the battery's charge is completely run down, it takes 2 to 3 hours to fully recharge. It is not necessary to

let the battery completely run down before recharging.

To charge your batteries, use only Verizon Wireless approved charging accessories.

Using the AC Adapter

To charge the battery, plug the AC Adapter into a standard wall outlet and connect it to the phone via the

I/O Connector on the bottom of the phone. The battery Charge Status icon flashes during charging. When

the battery is fully charged, the battery icon stops flashing.

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# **Using Your Phone**

#### **Placing a Call**

When the phone is turned on, check the Signal Strength icon to see of you are in a Verizon Wireless Service Area or authorized PCS CDMA provider's service area.

- 1. Open the Flip.
- 2. Enter the phone number, highlight Call and press .

  Tip! When dialing long distance, it is not necessary to dial a "1" before the area code.
- 3. When you are finished with your call, highlight and press . If the phone is in Active Flip Mode, closing the Flip will also end the call.

#### **Roaming With Your Phone**

When you use your phone outside the Verizon Wireless Network, it's called roaming. If you're roaming in areas where agreements are in place with PCS CDMA providers, you will pay the roaming rate plus long-distance charges, where they apply. (See "Display Icons" for network indication icons.) Always dial using 10 digits (area code + number) when calling from outside your Verizon Wireless Home Service Area.

#### **Setting Your Phone's Mode**

Your Phone allows you to control your ability to roam. (See "Set Mode")

#### Calling Experience

When you use your phone on other PCS CDMA networks, your calling experience and call quality will be quite similar to what you experience when making calls within the Network. Although certain calling features may not be available, your phone calls are still private and secure.

#### **Correcting Dialing Mistakes**

To delete one digit at a time, press . To delete all digits, press and hold . . .

#### **Redialing Last Outgoing Number**

Press and hold



for 2 seconds.

Dialing Options (phone book – Not Functioning)

When you enter numbers in the Main Menu, dialing options are displayed. To display a Phone Book entry, enter its entry number. To use the 4- Digit Dial option, enter the last four digits of a phone number in your Phone Book.

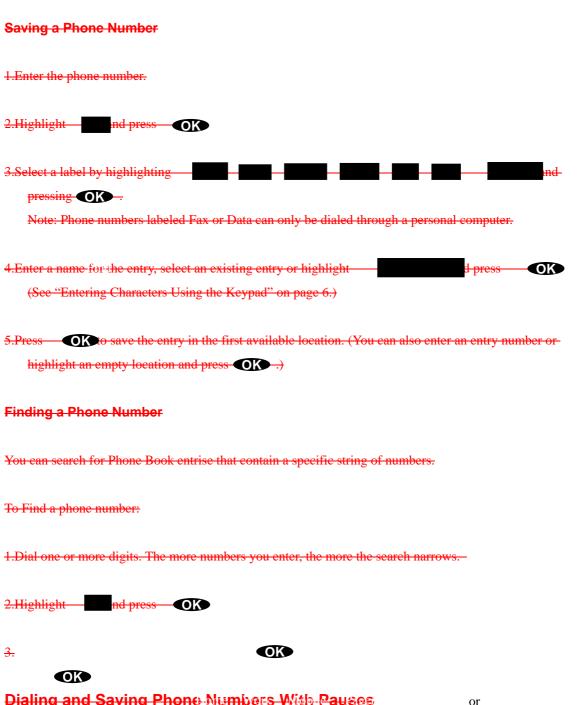
To select an option, highlight it and press



.(Menu display only, \_phone book – Not Functioning)

- Call Dials the phone number.
- Roam Confirm Reminds you that you are making a call on an. (See "Disabling Roam Confirm")
- Roam Call Dials the phone number using the current PCS CDMA or analog cellular network.
- Save Saves the phone number in your Phone Book. (See "Saving a Phone Number" on the following page.)
- Find Displays phone numbers in your Phone Book that contain the entered numbers. (See "Finding a Phone Number")
- Hard Pause Inserts a Hard Pause. (See "Dialing and Saving Phone Numbers With Pauses")
- 2- Second pause Inserts a two-second pause. (See "Dialing and Saving Phone Numbers With Pauses")
- Exit Returns to the Main Menu.
- A Phone Book Entry Displays the Phone Book entry. To dial the entry's speed-dealing number, press and hold
   . To dial an alternate number, highlight it and press and hold

Tip! To speed dial a Phone Book entry from the Main Menu, press and hold the entry's number. If the entry number is two digits, enter the first digit, then press and hole the second digit. (This feature will not work when the Roam Confirm option is enabled.) 4-Digit Dial - Dials the phone number in your Phone Book that ends with the four digits you enter. (See "4-digit Dialing")



# Dialing and Saving Phone Numbers With Pauses

You can dial or save phone numbers with pauses for use with automated systems, such as voicemail or credit card billing numbers. If you select a Hard Pause, the next set of

OK

numbers are sent when you press . If you select a 2-Second Pause, your phone automatically sends the next set of numbers after two seconds.

To dial or save a phone number with pauses:

1.Enter the phone number.

2.Highlight OK Press . Hard Pauses are displayed as a "P" and 2 Second Pauses as a "T."

3.Enter additional numbers.

If you enter a Hard Pause, highlight Send Tones and press [OK] to send the next set of numbers.

### 4-Digit Dialing

Enter four digits to display the 4-Digit Dialing option. If you select 4-Digit Dial, your phone dials the phone number in your Phone Book that ends with the four digits you entered.

To use 4-Digit Dialing:

1.Dial the last four digits of an entry's phone number.

2.Highlight 4-Digit Dial and press [OK].

Note: 4-Digit Dialing dials the first number in your Phone Book matching the four digits.

#### In Call Options

During a call, your phone displays menu options in addition to the Main Menu.

To select an option, Highlight it and press [OK]. (functions 'Send' and 'End' only)

- End Call Ends the call
- Send Tones Sends the next set of numbers after a Hard Pause. (See "Dialing and Saving Phone Numbers With Pauses" on the previous page.)
- Mute or Unmute Select Mute to mute your phone's microphone. Select Unmute to reactivate the microphone.
- Dial 3-Way Call Lets you dial another phone number.
- Flash Answers an incoming Call Waiting call or connects the third party for Three-Way Calling.

# **Incoming Call Notification**

Depending on your settings, your phone notifies you of incoming calls in the following ways:

- The phone rings or vibrates
- The LED flashes green
- The backlight illuminates
- The screen displays an incoming call message
- The phone number of the caller is displayed of the phone number is available
- The caller's name is displayed if the phone number is in your Phone Book

The following options are also displayed. To select an option, highlight it and press [SEND].

- Answer answers the call.
- Silent Ringer Mutes the ringer.

**Note:** You can also mute the ringer by pressing the up or down Volume Control key or [CLR].

### **Answering Calls**

To answer incoming Verizon Wireless calls, open the Flip (in Active Flip Mode) or press [SEND].

Note: If you open the Flip (in Active Flip Mode) and then press [SEND], you will hang up on the caller.

To answer incoming roam calls, highlight Answer and press [SEND].

# **Missed Call Notification**

When an incoming call is not answered, the Missed Log and Caller ID information are displayed on your screen. To return to the Main Menu, press and hold [CLR]. To dial the number, press and hold [OK].

Note: You cannot dial phone numbers identified as No ID, Restricted, Data or Fax calls.

# **End of Call Options**

After receiving or making a call to a phone number not in your Phone Book, the phone number (if the number is available), the duration of the call and End of Call menu options are displayed.

To select an option, highlight it and press [OK].

- OK Returns to the Main Menu. (You can also press [CLR].)
- Call Dials the number again.
- Save Phone # Saves the phone number in your Phone Book. (See "Adding a New Entry" on page 43.)

After receiving of making a call to a phone number in your Phone Book, the other party's name and phone number, the duration of the call and the following menu options are displayed.

To select an option, highlight it and press [OK].

OK - Returns to the Main Menu.

-Call Dials the number again

Alternate #s Displays the Phone Book entry (if the entry has alternate phone numbers). To dial an alternate number, highlight the phone number and press and hold [OK].

#### **Data/Fax Calls**

The Sprint PCS SP 510 can send and receive data or fax transmissions using the optional Data Connectivity Kit. To purchase this accessory, visit a Sprint PCS Center, Dial [#] [A] [C] [C] from your Sprint PCS SP 510, or dial 1 800 974 2221. For information on receiving data or faxes, see page 72.

#### **Internet Access**

For information on accessing the Internet from your phone, see "MiniBrowser" on page 61.

# **Handy Tips**

#### **Adjusting the Volume**

To adjusting the Ring Volume, press the up of down Volume Control keys in the Main Menu. The current Volume setting is displayed.

To adjust the incoming Voice Volume, press the Volume Control keys up or down during a call. The current Volume setting is displayed.

#### Displaying Your Phone Number(phone book - not functioning)

To display your phone number:

- 1. From the Main Menu, highlight Phone Book and press [SEND].
- 2. Highlight | Phone # and press [SEND].

Changing the Backlight Setting
The backlight illuminates when you press a key or receive an phone call.
To change the backlight setting:
1.From the Main Menu, highlight Display and press [OK].
2.Highlight Backlight and press [OK].
3.Highlight 8 Seconds, 15 Seconds, 30 Seconds, Off or Always On and press [OK].
Note: Long backlight settings affect the battery's talk and standby times.
Editing the Greeting
The Greeting is displayed above the time and date on the display screen (except during PCS CDMA of Analog Cellular Roaming).
To edit the Greeting:
1.From the Main Menu, highlight Display and press [OK].
2.Highlight Greeting and press [OK].
3.Highlight Change and press [OK].
4.To delete one character at a time, press [CLR]. To delete all characters, press and hold [CLR].
5.Enter your new Greeting using the keypad. (See "Entering Characters Using the Keypad" on page 6.)
6.Highlight Save and press [OK].
Adjusting the Contrast
To adjust the contrast setting:

1.From the Main Menu, highlight Display and press [OK].

2.Highlight Contrast and press [OK].

3.Highlight Highest, High, Medium, Low of Lowest and press [OK]. When you highlight an option, a preview of the Contrast setting is displayed.

Creating a Phone Book Entry

Your Sprint PCS SP 510 provides multiple ways to add phone numbers to your Phone Book. (For alternative ways, see "Saving a Phone Number" on page 14 or "Saving Phone Numbers From the Call Log" on page 35.)

1.From the Main Menu, highlight Phone Book and press [OK].

2.Highlight Add New Entry and press [OK].

3.Enter a name for the entry or highlight Save w/o Name and press [OK]. (See "Entering Characters Using the Keypad" on page 6.)

4.Enter the phone number and press [OK].

— Tip! If you save phone numbers with their area codes, you can still dial them from your Phone Book when you travel outside your Sprint PCS Home Service Area.

5.Select a label by highlighting Home, Work, Mobile, Pager, Fax, Data or No Label and pressing [OK]. Note: Phone numbers labeled Fax of Data can only be dialed through a personal computer.

6.Press [OK] to save the entry in the next available memory location. (You can also enter an entry number or highlight an empty location and press [OK].

Calling a Phone Number in Your Phone Book

To Dial a phone number in your Phone Book:

1.Display a Phone Book entry. (See "Finding a Name" on page 40 or "Finding an Entry Number" on page

41.)

2.To speed dial the entry's default number, press and hold [OK]. To dial an alternate number, highlight the number and press and hold [OK].

— Tip! To speed dial a Phone Book entry from the Main Menu, press and hold the entry's number. If the entry number is two digits, enter the first digit, then press and hold the second digit.

#### Setting the Ring Volume to Vibrate

The vibrating ringer lets you receive incoming calls without disturbing others.

To set the phone to Vibrate Mode, press the down Volume Control key until Ring Volume Vibrate is displayed. The phone will vibrate and – Vibrate On- is displayed above the Main Menu.

Note: When the phone is in Vibrate Mode and attached to an accessory (Desktop Charger, Hands-Free Car Kit, etc.), it uses the Standard Ring Type to alert you of incoming calls.

To set the phone to Vibrate Mode using the Main Menu, see "Adjusting the Volume" .

### **Setting the FCC Test items**

- 1. Press [Menu] + 0 + 0 + "000000"
- 2. Press '8' key for entering FCC Test menu
- 3. Select one of 3 sub-menus (PCS FCC / CDMA FCC / AMPS FCC)
- 4. You can see "Set Channel", "AGC Control"
- Select "Set Channel" and press OK.You can input Channel Number
- Select "AGC Control" and press OK You can input AGC Control value

Getting the Most From Service
Accessing Sprint PCS Voicemail
To speed dial your voicemail, press and hold [ 1 ].
Note: The phone number for your Sprint PCS Voicemail box is stored in the first Phone Book entry. If you edit the entry, this option may not work.
To dial your voicemail from the Main, Menu, highlight Messages and press and hold [OK].
To access your voicemail from a phone other than your Sprint PCS :
1.Deal your Sprint PCS Phone Number.
2.When the voicemail system answers, press [*] and enter your pass code.
Note: You are charged for air time when accessing your voicemail box.
Setting Up Your Sprint PCS Voicemail
Sprint PCS Voicemail allows callers to leave a message when you don't answer your Sprint PCS SP 510.  We suggest you set up your voicemail box soon after your phone is activated.
The first time you access the voicemail system (see "Accessing Sprint PCS Voicemail" above) from your Sprint PCS SP 510, it prompts you to:

- 1.Create your own personal pass code. Make sure that you pick a number that is easy to remember.
- 2.Record your name announcement.
- 3. Create the greeting callers hear when they reach your voicemail.
- 4.Choose whether of not to activate One Touch Message Access. If you select One Touch Message Access, you do not have to enter your pass code to access voicemail messages.

Note: One Touch Message Access is available when you call from your Sprint PCS SP 510 in your sprint PCS Home Service Area.

### **New Massage Alerts**

When you receive new voicemail, page/text or Browser messages, your phone rings briefly, the LED flashes red and the Edicon is displayed.

If it is a voicemail message, the following options are displayed. To select an option, highlight it and press [SEND].

• SEND – clears the message. (You can also press [CLR].) Call – Dials your voicemail box.

If it is a page/test message, the following options are displayed. To select an option, highlight it and press [SEND].

- Read Displays the message.
- Exit Returns to the Main Menu. (You can also press [CLR].)

#### **Retrieving Page/Text Messages**

To retrieve page/text messages:

1. From the Main Menu, highlight Messages and press [OK].

2. Highlight Page/Text and press [OK].

Tip! You can also access page/text messages from the Main Menu by pressing the Mouse Key left

3. Highlight the message you want to display and press [OK]. Press the Mouse Key down to display additional text.

**Tip!** You can view the next or previous message by pressing the Mouse Key left (previous) or right (next)

4. Press [OK] to display message options.

To select an option, highlight it and press [OK].

Page Message options:

- -Call Dials the phone number of the sender (if applicable).
- Alternate #s Displays the Phone Book entry (if the sender's phone number is in your Phone Book and the entry has alternate phone numbers). To dial an alternate number, highlight the phone number and press and hold [OK].
- Save Phone # Saves the phone number in your Phone Book (if applicable).
- Prepend Prepends the phone number (if applicable). (See "Prepend Dialing" on page 36.)
- Erase Message Deletes the message.
- Read Displays the message again.
- Exit Returns to the Main Menu.

Text Message options:

- —Call Dials the phone number of the sender (if applicable).
- Alternate #s Displays the Phone Book entry (if the sender's phone number is in your Phone Book and the entry has alternate phone numbers). To dial an alternate number, highlight the phone number and press and hold [OK].

- Save Phone # Saves the sender's phone number in your Phone Book (if applicable).
- Extract #s Extracts phone numbers (if there are numbers contained in the text message).(See the following chapter.)
- Prepend Prepends the phone number (if applicable). (See "Prepend Dialing" on page 36.)
- Erase Message Deletes the message.
- Read Displays the message again.
- Exit Returns to the Main Menu.

#### **Extracting Phone Numbers From Text Messages**

To extract a phone number from a text message:

- 1. While displaying a text message, press [OK] to view the Text Message options.
- 2. Highlight Extract #s and press [OK]. All the phone numbers contained in the message are displayed.

Note: If there are no phone numbers to extract from the message, the option does not display.

3. Highlight the number you want to call or save and press.

4. Highlight Call, Next (to display the following number), Save Phone # or Prepend and press [OK].

#### **Erasing All Page/Text Messages**

- 1. From the Main Menu, highlight Messages and press [OK].
- 2. Highlight Erase Page/Text and press [OK].
- 3. Highlight Yes and press [OK].

# Sending a Page or Text Message to Your Phone

Callers have the option to send a page message when they reach your voicemail box. A page/text message can also be sent to your phone via e mail. Your address is Yourphonenumber@messaging.sprintpcs.com.

#### Page/Text Message Storage

Your VX3300 can store up to 50 page/text messages. When the message memory is 90% full, a warning message prompts you to erase messages to obtain more memory space.

#### Caller ID

Caller ID displays the phone number of the person calling you (if the number is available). When you receive a call from a phone number stored in your Phone Book, the entry's name is also displayed.

If you call someone from your Sprint PCS SP-510 who has Caller ID, your phone number is displayed on their phone. To block your phone number for a particular outgoing call, press [\*] [6] [7] before dialing the phone number.

# **Call Waiting**

If you receive an incoming call while you are on another call, you hear a beep and the person's Caller ID information is displayed.

To answer the call, highlight Flash and press [OK]. To toggle between the two callers, highlight Flash again and press [OK].

If you do not want to be interrupted during a call, you can temporarily disable Call Waiting by pressing [\*] [7] [0] before dialing the phone number. When the call is finished, Call Waiting automatically reactivates.

To permanently disable Call Waiting for all calls, contact Sprint PCS Customer Care.

# **Three-Way Calling**

Three Way Calling lets you talk to two people at the same time.

To conference in a third caller when you are on a call:

1. Highlight Dial 3 Way Call and press [OK].

2.Enter the phone number, highlight 3 Way Call and press [OK].

3. When the call is answered, highlight Flash and press [OK] to begin your Three Way Call.

Note: You can also initiate a Three-Way Call during a Call by dialing a phone number from your Phone Book, Call Logs or Page/Text messages.

#### **Dialing Sprint PCS Customer Care**

A Sprint PCS Customer Advocate is available to assist you 24 hours a day by dialing [\*] [2] [OK] (in Southern California dial [\*] [6] [1] [1] [OK]) from your Sprint PCS SP-510.

An Advocate can help you with questions regarding your phone, billing, Sprint PCS Services and air time usage. You can also reach Sprint PCS Customer Care By dialing 1-888-211-4PCS (4727)

(To dial Sprint PCS Services from your Phone Book, see "Dialing Sprint PCS Services" on page 44.)

#### **Dialing Sprint PCS Directory Assistance**

To obtain residential, business and government listings; to get help completing local – or long – distance ealls; or to obtain movie listings, hotel, shopping and local event information, contact Sprint PCS Directory Assistance by dialing [4][1][1][OK]. Sprint PCS will connect your call at no additional charge.

(To dial Sprint PCS Services from your Phone Book, see "Dialing Sprint PCs Serviced" on page 44.)

#### **Dialing Sprint PCS Operator Services**

For assistance with placing collect calls or using a calling card, dial [0] and press [OK].

#### Roadside Assistance

Contact Sprint PCS Customer Care for information on the Roadside Assistance program.

#### **Making Emergency Calls**

You can place calls to 911, Customer Care ([\*][2][OK] or [\*][6][1][1][OK] in Southern California) or the Special Numbers even when your phone is locked. To call 911, dial [9][1][1] and press [OK]. To dial a Special Number, dial the phone number and press [OK]. (See "Using Special Numbers" on page 70.)

#### **Roaming on to Other Service Providers**

Roaming occurs when you are in an area serviced by another authorized service provider. When this situation occurs, the icon and Digital Roam of Analog Roam are displayed. If there is no service available, the icon is displayed.

# **Getting the Most From Your Phone**

#### **Main Menu**

The Main Menu is displayed when your phone is in a Sprint PCS or authorized PCS CDMA or analog cellular provider's service area (or below the In Call Options when you are on a call). To return to the Main Menu from another menu, press and hold [CLR].

#### **Main Menu Options**

Call Logs	Scheduler	<del>Security</del>
Messages	MiniBrowser	Setup
Phone Book	Sounds	Calculator
Roaming	Display	Games

To select a Main Menu option, highlight it and press [OK]. For a complete description of each menu, see the appropriate chapter.

### **Call Logs (Call History- not functioning)**

Your Sprint PCS SP-510 stores your last ten incoming, ten outgoing and ten missed calls in the Call Logs menu.

#### **Viewing Call Logs**

To view the last ten incoming, ten outgoing or ten missed calls.

- 1.From the Main Menu, highlight Call Logs and press [OK].
- 2. Highlight either Outgoing Log, Incoming Log or Missed Log and press [OK].

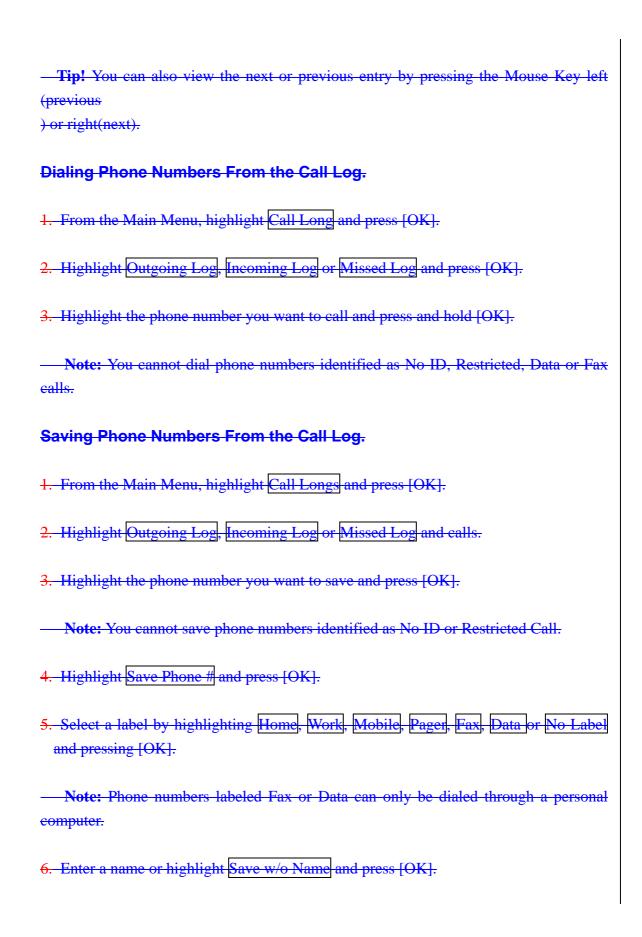
Note: When you receive a call from or dial a phone number in the Missed Log, the entry is removed from the Missed Log. A new entry will be stored in either the Outgoing or Incoming Log. The Outgoing and Incoming Logs also remove duplicate entries.

3.To view a Call Log entry, highlight the entry and press [OK]. The phone number, Phone Book entry name (if the number is in your Phone Book) and following menu options are displayed.

To select an option, highlight it and press [OK].

- —Call Dials the phone number.
- Alternate #s If the phone number is in your Phone Book and the entry has alternate numbers, they are displayed. To dial an alternate number, highlight it and press and hold [OK].
- Save Phone # If the phone number is not in your Phone Book, an entry is created.
- Time/Date Displays the time, date and duration of the call.
- Prepend Prepends the phone number.

  (See "Prepend Dialing" on the following page.
- —Erase Deletes the Call Log entry.
- Next Displays the next Call log entry.
- Previous Displays the previous Call log entry.



7. Press [OK] to save the entry in the next available memory location. (You can also enter an entry number or highlight an empty location and press [OK].) **Prepend Dialing** You can add an area code, pauses or additional number before a phone number by using the Prepend option. To prepend digits to a phone number: 1.Select a phone number from the Call Logs, Phone Book of page/text message. 2. Highlight Prepend and press [OK]. 3.Enter the numbers you want dialed before the phone number. To select an option, highlight it and press [OK]. — Call – Dials the current phone number. — Save Phone # - Creates a Phone Book entry using the current number. - Hard Pauses - Inserts a Hard Pause. (See "Dialing and Saving Phone Numbers With Pauses" on page 15.) Exit - Returns to the previous screen. **Erasing Multiple Call Logs** To erase multiple Call Logs: 1.From the Main Menu, highlight Call Logs and press [OK].

3. Highlight Outgoing Log, Incoming Log, Missed Log or All Logs and press [OK].

2. Highlight Erase Logs and press [OK].

4. Highlight Yes and press [OK].

# **Viewing and Resetting Air Time**

Air Time displays MiniBrowser access and Sprint PCS, PCS CDMA and analog cellular air time (rounded to the nearest minute), as well as the number of calls made to or from your phone.

To view Air Time:

1.Highlight Call Logs and press [OK].

2.Highlight Air Time and press [OK].

To reset the Air Time, highlight Reset and press [OK].

Note: Air Time is not intended for billing purposes.

#### **Messages**

=====page 38 ====

#### **Voicemail**

For information on voicemail messages, see "Accessing Sprint PCS Voicemail" on page 24.

#### Page/Text Messages

For information on page/text messages, see "Retrieving Page/Text Messages" .

# Clearing the Message Icon

Your phone may temporarily continue to display the Edicon after you have checked your new voicemail messages.

To clear the ⊡ icon from the display screen:

1. From the Main Menu, highlight Messages and press [OK].

2. Highlight Voicemail and press [OK].

3. Highlight Clear Count and press [OK]

4. Highlight Yes and press [OK].

## **Browser Messages**

To access Browser messages from the Messages menu:

1. From the Main Menu, highlight Messages and press [OK].

2. Highlight Browser Msgs and press [OK].

## **Erasing Page/Text Messages**

To erase all page/text messages:

- 1. From the Main Menu, highlight Messages and press [OK].
- 2. Highlight Erase Page/Text and press [OK]
- 3. Highlight yes and press [OK].

## **Phone Book**

Your Sprint PCS SP 510 can store 99 personal entries. Each Phone Book entry can store up to nine phone numbers, so you can save a person's home and work number in the same location in the same location. The Phone Book can store a total of 300 numbers.

#### **Phone Book Menu**

==== page 40 7 !=======

## **Finding a Name**

- 1. From the Main Menu, highlight Phone Book and press [OK].
- Highlight Find Name and press [OK]. Phone Book entries are listed in alphabetical order.
   Tip! You can also access the Rind Name feature by pressing the Mouse Key right in the Main Menu.
- 4.Scroll through the Phone Book with the Mouse Key (up/down) or enter letters to narrow the search.

  The Phone Book displays all entries containing the letters you enter.
- 5.To display an entry, highlight it and press [OK]. To speed dial the entry, press and hold [OK]. To deal alternate numbers, press the Mouse Key left or right and press and hold [OK]. (See "Phone Book Entry Options" on page 42.)

## **Finding an Entry Number**

- 1.From the Main Menu, highlight Phone Book and press [OK].
- 2.Highlight Find Entry and press [OK]. Phone Book entries are listed in numerical order.
- 3.Scroll through the Phone Book with the Mouse Key (up/down) or enter the two-digit entry number to find the entry.
- 4.To display an entry, highlight it and press [OK]. To speed dial the entry, press and hold [OK]. To dial alternate numbers, press the Mouse Key left or right and press and hold [OK]. (See "Phone Book Entry Options" on page 42.)

## **Phone Book Entry Options**

To Display a Phone Book entry, see "Finding a Name" or "Finding an Entry" on the previous pages.

To select an option, highlight it and press [OK].

Call Dials the entry's speed dialing number.
—Roam Confirm —Reminds you that you are making a call on an analog network. (See "Disabling Roam confirm" on page 76.)
—Roam Call —Dials the phone number using the current PCS CDMA or analog cellular network.
—Alternate Numbers — Press and hold [OK] to dial an alternate phone number (if the entry has more than one phone number).
—Call Alarm —Creates a Call Alarm. (See "Adding Call Alarms From the Phone Book" on page 45.)
—Add Phone # Adds a phone number to the entry. (See "Adding Phone Numbers to a Phone Book Entry" on page 46.)
—Set ID Ringer —Assigns a Ring Type to the entry. (See "Selecting an ID Ringer" on page 46.)
Prepend Inserts numbers or pauses before the phone number. (See "Prepend Dialing" on page 36.)
Edit Edits the entry. (See "Editing a Phone Book Entry" on page 47.)
Erase Number To delete the selected phone number, press [OK] again.
Erase Entry To delete the entry, press [OK] again.
— Next — Displays the next Phone Book entry.
Previous - Displays the previous Phone Book entry.
— <b>Tip!</b> You can also view the next or previous entry by pressing the Mouse Key left (previous) or right (next).
Adding a New Entry
To add a new entry:

1.From the Main Menu, highlight Phone Book and press [OK].
- Tip! You can also add an entry from the Main Menu by entering a phone number, highlighting
Save and pressing [OK].
2.Highlight Add New Entry and press [OK].
3.Enter a name for the entry or highlight Save w/o Name and press [OK]. (See "Entering Characters Using the Keypad" on page 6.)
4.Enter the phone number and press [OK].
Tip! If you save phone numbers with their area codes, you can still dial them from your Phone
Book when you travel outside your Sprint PCS Home Service Area.
5. Select a label by highlighting Home, Work, Mobile, Pager, Fax, Data or No Label and pressing [OK].
Note: Phone numbers labeled Fax of Data can only be dialed through a personal computer.
6.Press [OK] to save the entry in the next available memory location. (You can also enter an entry number
or highlight an empty location and press [OK].)
My Sprint PCS Phone Number
To display your phone number:
1.From the Main Menu, highlight Phone Book and press [OK].
2.Highlight My Phone # and press [OK].
Dialing Sprint PCS Services
You must be in Digital Mode to access Sprint PCS Services. To dial Sprint PCS Services:
1.From the Main Menu, highlight Phone Book and press [OK].
2.Highlight Services and press [OK].

Highlight Call and press [OK].
For information on Sprint PCS Services, see pages 30-31.
Adding Call Alarms From the Phone Book
Schedule a Call Alarm to remind you to make an important call.
To add a Call Alarm from the Phone Book:
1.Display a Phone Book entry.
2.Highlight Call Alarm and press [OK].
3.Enter the time and date using your keypad. (Fields must be two digits, for example "05:07a 01/01/99.")  To toggle between AM and PM, highlight AM/PM and press [OK].
4.To schedule the Call Alarm, highlight Done and press [OK]. To repeat the alarm, highlight Set Repeating and press [OK].
Set Repeating—To repeat the Call Alarm, highlight Daily, Weekly, Monthly or Yearly and press [OK].
Tip! You can also add a Call Alarm from the Scheduler menu. (See "Adding Call Alarms From the Scheduler" on page 53.)
Call Alarm Notification
If your phone is powered on when a Call Alarm is scheduled, the phone displays the Phone Book entry name or phone number, the time and date of the alarm and the following menu options.
To select an option, highlight it and press [OK].
OK – Displays the Call or Roam Call option. To dial the number, press [OK] again. To dial an alternate phone number, highlight the number and press and hold [OK].
— Snooze — Repeats the alarm in ten minutes.

— Erase — Deletes the alarm.
— Edit Time/Date Lets you reschedule the time, date and frequency of the alarm.
—Exit —Returns to the Main Menu (or press [CLR])
If your phone is powered off when a Call Alarm is scheduled, the alarm is displayed the next time your phone powers on.
Adding Phone Numbers to a Phone Book Entry
To add a phone number to a Phone Book Entry
1. Display a Phone Book entry.
2. Highlight Add Phone # and press [OK].
3. Enter the phone number and press [OK].
4. Select a label by highlighting Home, Work, Mobile, pager, Fax, Data or No Label and pressing ok.
Note: Phone numbers labeled Fax or Data can only be dialed through a personal computer.
Tip! You can also add a phone number by entering the number and selecting Save.(See "Saving a Phone Number" Selecting an ID Ringer
You can assign twenty-five ringer tones(plus a vibrating ringer)to a Phone Book entry so you can identify the caller by the sound of the ringer.
To select an ID Ringer:
1. Display a Phone Book entry.
2. Highlight Set ID Ringer and press [OK].

3. Highlight a Ring Type and press [OK] You will hear a preview of the Ring Type when you highlight it.
Prepending a Phone Book Entry
For information on prepending phone numbers, see "Prepend Dialing" on page 36.
Editing a Phone Book Entry
To edit a Phone Book entry's phone number, name or entry number:
1. Display a Phone Book entry.
2. Highlight Edit and press [OK].
To select an option, highlight it and press [OK].
Phone # Highlight the phone number you want to edit and press [OK]. Press the Mouse Key left or [CLR] to delete digits. Use the keypad to enter new digits.
Name Press the Mouse Key left to move the cursor, or press CLR to delete characters. Use the keypad to enter new characters. Press ok to save the change.
Entry # To change the entry number, highlight an empty location and press OK.
To make a Phone Book entry secret or change the speed-dialing number, see the following chapters.
Secret Phone Book Entries
You can hide an entry's phone number by making it secret . The entry name is still displayed, but the number is replaced by (secret)
To make a Phone Book entry secret :
1. Display a Phone Book entry.

2. Highlight Edit and press [OK].
3. Highlight Make Secret and press [OK].
4. Highlight Yes and press [OK].
To make a secret Phone Book entry not secret:
1. Display a Phone Book entry.
2. Highlight Edit and press [OK].
3. Enter your lock code.
4. Highlight Make Secret and press OK.
5.Highlight No and press OK.
Changing Speed-Dialing Numbers
Changing Speed-Dialing Numbers  The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing number.
The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing
The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing number.
The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing number.  To change the default speed-dialing number for a Phone Book entry:
The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing number.  To change the default speed-dialing number for a Phone Book entry:  1. Display a Phone Book entry.
The first phone number you enter when creating a Phone Book entry is used as the default speed dialing number.  To change the default speed dialing number for a Phone Book entry:  1. Display a Phone Book entry.  2. Highlight Edit and press [OK].
The first phone number you enter when creating a Phone Book entry is used as the default speed-dialing number.  To change the default speed-dialing number for a Phone Book entry:  1. Display a Phone Book entry.  2. Highlight Edit and press [OK].  3. Highlight Set Speed Dial and press [OK].

To operate your phone on either the Sprint PCS Nationwide Network, authorized PCS CDMA or analog cellular network(the phone will search for the Sprint PCS network first): 1. From the Main Menu, highlight Roaming and press [OK]. 2. Highlight Set Mode and press [OK]. To operate your phone on the Sprint PCS Nationwide Network or PCS CDMA network only, or an authorized analog cellular network only(the phone will not use the alternate available network even if your phone is in that network's coverage area): 1. From the Main Menu, highlight Roaming and press [OK]. 2.Highlight Set Mode and press [OK]. 3. Highlight Sprint PCS or Analog Only and press [OK]. When switching between Sprint PCS and Analog Only, the Battery Charge Status icon may vary due to different transmission power requirements. Note: The Analog Only setting is not saved the next time the phone powers up. To disable the extra step required to make or answer a roaming call: 1.From the Main Menu, highlight Roaming and press [OK]. 2. Highlight Call Guard and press [OK]. 3. Highlight No and press [OK]. **Scheduler** 

Use the Scheduler to remind you of events or important calls you need to make. You can schedule up to 100 events, 15 Call Alarms and 20 To Do Items.

#### **Scheduler Menu**

# Adding Meetings, Special Occasions, General Events and Dining Appointments 1.From the Main Menu, highlight Scheduler and press [OK]. 2. Highlight the day you want to add an event to by pressing the Mouse Key left (previous day) or right (next day) and press [OK]. — Tip! Press the Mouse Key up or down to scroll through the previous (up) or next (down) week's events. Press the up or down Volume Control keys to scroll through the week's events for the previous (up) or next (down) month. 3. Highlight Add Event and press [OK]. 4. Highlight Meeting, Spel Occasion, Event or Dining Appt, and press [OK]. 5.Enter a description and press [OK]. 6.Enter the time, date and duration using your keypad. (Fides must be two digits, for example "05:07a 01/01/99.") To toggle between AM and PM, highlight AM/PM and press [OK]. 7.To schedule the event, highlight Done and press [OK]. To further edit the event, highlight Edit Alarm Edit Repeat of Set End Time and press [OK]. Edit Alarm - Enter the number of hours or minutes before the event you want the alarm to sound and press [OK]. If you do not want to be reminded, highlight No Alarm and press [OK]. The & icon is displayed next to your event if an alarm is scheduled with the event.

Note: Default alarm times are 10 minutes for Meetings, Events and Dining Appointments, 24 hours for Special Occasion and 0 minutes for Call Alarms.

— Edit Repeat — To repeat the event, highlight Daily, Weekly, Monthly or Yearly and press [OK]. The icon is displayed next to your event if the event if scheduled to repeat.

**Note:** Default alarm times are 10 minutes for Meetings, Events and Dining Appointments, 24 hours for Special Occasions and 0 minutes for Call Alarms.

- Edit Repeat - To repeat the event, highlight Daily, Weekly, Monthly or Yearly and press icon is

displayed liext to your event is scheduled to repeat.
Set End Time If the duration is longer than 99 hours 99 minutes, you can schedule an end time by entering the time and date and pressing [OK].
Event Notification
When an event alarm is scheduled, the event description, time and date and following menu options are displayed.
To select an option, highlight it and press [OK].
— View Details — Displays the event time, date, duration and description.
— Snooze — Repeats the alarm in ten minutes.
— Erase — Deletes the event, even if it is a repeating event.
— Edit — Lets you edit the time and date of the event.
Exit Returns to the Main Menu (or press and hold [CLR]).
If your phone is powered off when an event alarm is scheduled, the same menu options are displayed the next time your phone powers on.
Adding Call Alarms From the Scheduler
Schedule a Call Alarm to remind you to make an important call. To add a Call Alarm from the Scheduler.
1.From the Main Menu, highlight Scheduler and press [OK].
2.Highlight the day you want to schedule a Call Alarm for by pressing the Mouse Key left (previous day) or right (next day) and press [OK].
- Tip! Press the Mouse Key up or down to scroll through the previous (up) or next (down) week's events. Press the up or down Volume Control keys to scroll through the week's events for the

previous (up) or next (down) month.
3.Highlight Add Event and press [OK].
4.Highlight Call Alarm and press [OK].
5.Highlight the Phone Book entry you want to be reminded to call, or highlight Number Only and press [OK]. If you select Number Only, enter the phone number and press [OK].
6.Enter the time and date using your keypad. (Fields must be two digits, for example "05:07a 01/01/99.")  To toggle between AM and PM, highlight AM/PM and press [OK]. To repeat the alarm, highlight Set Repeating and press [OK].
— Set Repeating — To repeat the event, highlight Daily, Weekly, Monthly or Yearly and press [OK].
7.Highlight Done and press [OK].
Tip! You can also add a Call Alarm from the Phone Book menu. (See "Adding Call Alarms From
the Phone Book" on page 45.)
Call Alarm Notification
See "Call Alarm Notification" on page 45.
Viewing Events and Call Alarms
1.From the Main Menu, highlight Scheduler and press [OK].
2.A "*" is displayed next to days with events or Call Alarms scheduled. When you highlight a day with an "*", Event Type icons are displayed at the bottom of the screen. Icons are not displayed in chronological order and only one icon appears per event type. (See "Event Type Icons" on the following page.)
- Tip! Press the Mouse Key up or down to scroll through the previous (up) or next (down) week's
events. Press the up of down Volume Control keys to scroll through the week's events for the
previous (up.) or payt (down) month

- 3.To View an individual day, highlight the day by pressing the Mouse Key left (previous day) or right (next day) and press [OK]. Events are displayed in chronological order.
- 4.To display an event, highlight it and press [OK].

— Tip! To view the day's next or previous event or Call Alarm, press the Mouse Key left (previous) or right (next).

5.To display event options, press [OK]. (See "Event Options" on page 56)

To view a future or past day's scheduled events:

- 1. From the Main Menu, highlight Scheduler and press [OK].
- 2. Press [OK] to display the Scheduler menu.
- 3. Highlight Go To Date and press [OK].
- 4. Enter the date using your keypad. (Fields must be two digits, for example "01/01/99.")
- 5. Highlight Go and press [OK]. Press [OK] again to view the day's events.

#### **Event Type Icons**

When you create events, icons are displayed that indicate that event type.

ICON	DESCRIPTION
	Meeting
	Dining Event
	<del>Call Alarm</del>
	Special Occasion
	Generic Event

Repeation Event
Alarm

Event Options
To edit an event, display an event and press [OK].
To select an option, highlight it and press [OK]
Erase Deletes the event.
Edit Descript - Edits the event description.
Edit Time/Date - Edits the time, date and duration of the event.
Next - Displays the next scheduled event for the selected day.
Previous — Displays the previous scheduled event for the selected day:
Tip! You can also view the next or previous event by pressing the Mouse Key left (previous) or right (next).
Exit – Returns to the Scheduler menu.
Editing Call Alarms
To edit a Call Alarm, highlight the alarm and press [OK]. The time, date and phone number (or Phone Book entry) are displayed with the following options.
To select an option, highlight it and press [OK].
— Erase — Deletes the Call Alarm.
Edit Time/Date - Edits the time and date of the Call Alarm.

— Next — Displays the next scheduled event or Call Alarm for the selected day.
— Previous — Displays the previous scheduled event or Call Alarm for the selected day.
— <b>Tip!</b> You can also view the next or previous event or Call Alarm by pressing the Mouse Key left (previous) or right (next).
Exit Returns to the Scheduler menu.
Adding To-Do's
To add an entry to your To Do List:
1.From the Main Menu, highlight Scheduler and press [OK].
2.Press [OK] again to display the Scheduler menu.
3.Highlight To Do List and press [OK].
4.Highlight Add I tem and press [OK].
5.Enter a description and press [OK].
6.Highlight Low or High and press [OK]. Low priority To-Do's are indicated by a "*", high priority To-Do's by a "!". When you complete a To-Do, you can identify it as Done. (See "Editing To-Do's" on page 59).
Viewing To-Do's
To view your To-Do List:  1.From the Main Menu, highlight Scheduler and press [OK].
2.Press [OK] to display the Scheduler menu.
3.Highlight To Do List and press [OK].

# **Editing To-Do's** To edit a To-Do, Highlight the To-Do and press [OK]. To select an option, highlight it and press [OK]. — Erase Item — Deletes the To-Do. Edit Priority Edits the To-Do's priority or identifies it as Done. A check mark identifies To Do's as Done. — Edit Descript — Edits the To-Do's description. — Add to Schedule — Removes the To-Do from the To-Do List and makes it a scheduled event. To schedule the To Do to as an event, enter a time and date with your keypad. To select an option, highlight it and press [OK]. — Done — Schedules the To-Do as an event. — AM/PM – Toggles the event time between AM and PM. — Edit Alarm — Edits the number of hours or minutes an alarm sounds before the event. — Edit Repeat – Lets you schedule the event to repeat. — Set End Time – Edits the event's end time. Exit - Returns to the Scheduler menu. — Next – Displays the next scheduled To-Do. — Previous — Displays the previous scheduled To-Do. Tip! You can also view the next or previous To-Do by pressing the Mouse Key

left (previous) or right (next) Exit Returns to the scheduler menu. **Erasing Multiple Events, Call Alarms of To-Do's** To erase old events. Call Alarms and To-Do's: 1.From the Main Menu, highlight Scheduler and press [OK]. 2.Press [OK] to display the Scheduler menu. 3. Highlight Memory and press [OK]. 4. Highlight Erase Old and press [OK]. Tip! To erase all events, Call Alarms and To Do's, highlight Erase All and press <del>[OK]</del> 5.Highlight Yes and press [OK]. Viewing Scheduler, Call Alarm and To-Do Memory To view memory space: 1. From the Main Menu, highlight Scheduler and press [OK]. 2. Press [OK] to display the Scheduler menu. 3. Highlight Memory and press [OK]. 4. Highlight View Details and press [OK]. 5. Highlight Schedule, Call Alarm or To-Do List and press [OK].

#### **MiniBrowser**

## **MiniBrowser Menu**

<del>===page 61 가====</del>

## **Using the MiniBrowser**

The phone must be on a Sprint PCS or digital network to use the MiniBrowser, but you can view saved (cached) pages in Analog Mode. When you are viewing cached pages, there is no network activity and you are not billed for air time. Wen you access the Internet and view new Web sites, a data call is initiated. If there is no network activity within a specific time, the data call is automatically dropped.

Note: Signal strength affects your phone's ability to access the Internet.

To activate the MiniBrowser:

1.From the Main Menu, highlight MiniBrowser and press [OK].

Note: The first time you log on the MiniBrowser, you may be prompted to enable security encryption by pressing [OK].

- 2.What appears on the display when accessing the MiniBrowser is dependent on the service provider content. To view additional text, press the Mouse Key up or down to scroll by line, or press the up or down Volume Control keys to scroll by page
- 3.To select a menu option at the bottom of the screen, highlight the option by pressing the Mouse Key left or right and press [OK]. Depending on the site you are viewing, the following options may be displayed.
- Home Displays the Home page.
- Exit Returns to the Main Menu. (You can also press and hold [CLR])
- Help Displays the Help menu.

Link Accesses a linked Web page. Links are identified by brackets " [Web link]."

Back Backs up to the previously viewed page. (You can also press [CLR])

#### Sounds

## **Adjusting the Volume**

- 1. From the Main Menu, highlight Sounds and press [OK].
- 2. Highlight Volume and press [OK].
- 3. Highlight Ringer or Key Beep and press [OK].

**Tip!** You can use the Volume Control keys to adjust the Ring Volume in the Main Menu or the Voice Volume during a call.

4. Highlight High, Medium, Low, Off or Vibrate (for Ringer only) and press [OK].

**Note:** When the phone is in Vibrate Mode and attached to and accessory (Desktop Charger, Hands-Free Car Kit, etc.), it uses the Standard Ring Type to alert you of incoming calls, alarms or messages.

## Selecting Ring Types for Voice Calls

To Select a Ring Type for Voice Calls:

- 1. From the Main Menu, highlight Sounds and press [OK].
- 2. Highlight Ring Type and press [OK].
- 3. Highlight Voice Calls and press [OK].
- 4. Highlight With Caller ID, No Caller ID or Roaming and press [OK].

**Note:** If you select Roaming, the Ring Type is used for all incoming roaming calls.

5. Highlight a Ring Type and press [OK]. You will hear a preview of the Ring Type when you highlight it.

**Tip!** You can also assign different Ring Types to individual Phone Book entries. (See "Selecting an ID Finger" on page 46.)

Selecting Ring Types for Messages

To select a Ring Type for Messages:

- 1. From the Main Menu, highlight Sounds and press [OK].
- 2. Highlight Ring Type and press [OK].
- 3. Highlight Messages and press [OK].
- 4. Highlight Voicemail, Page/Text of MiniBrowser and press [OK].
- 5. Highlight a Ring Type and press [OK]. You will hear a preview of the Ring Type when you highlight it.

## Tone LengthSelecting Ring Types for Alarms, Data Calls and Fax calls

To select a Ring Type for Alarms, Data Calls or Fax Calls:

- 1.From the Main Menu, highlight Sounds and press [OK].
- 2. Highlight Ring Type and press [OK].
- 3. Highlight Alarms, Data Calls or Fax Calls and press [OK].
- 4.Highlight a Ring Type and press [OK]. You will hear a preview of the Ring Type when you highlight it.

Longer tone lengths may be better for tone recognition when dialing voicemail or other automated systems.

To select a tone length:

1. From the Main Menu, highlight Sounds and press [OK].

2. Highlight Key Tone and press [OK].

#### **Alert Notification**

To enable of disable alert sounds:

3. Highlight Short of Long and press [OK].

- 1. From the Main Menu, highlight Sounds and press [OK].
- 2. Highlight Alerts and press [OK].
- 3. Select an alert by highlighting it and pressing [OK].
- Services An alert sounds when you exit or enter PCS CDMA or cellular coverage.
- Messages An alert sounds when you receive a voicemail or page/text message.
- Minute Minder Your phone beeps once a minute when you are on a call. (The beep is not audible
  to the other party.)

Flip - An alert sounds when you open or close the Flip (in Active Flip Mode).

4. Highlight ON or Off and press [OK].

## **Display Menu**

For information on changing Backlight, Greeting or Contrast settings, see Handy Tips.

## **Security**

#### **Accessing the Security Menu**

You must enter your lock code to view the Security menu. If you forget your lock code, try using the last four digits of your Social Security number, the last four digits of your Phone Number or 0000.

To access the Security menu:

- 1. From the Min Menu, highlight Security and press [OK].
- 2. Enter your lock code.

## **Locking Your Phone**

When your phone is locked, you can only make calls to 911, Customer Care and Special Numbers or receive incoming calls.

To lock your phone:

- 1. From the Security menu, highlight Lock Phone and press [OK].
- 2. Highlight Lock Now or On Power up and press [OK]. If you select On Power Up, the phone will be locked each time it power up.

## **Unlocking Your Phone**

- 1. Highlight Unlock and press [OK].
- 2. Enter your lock code.

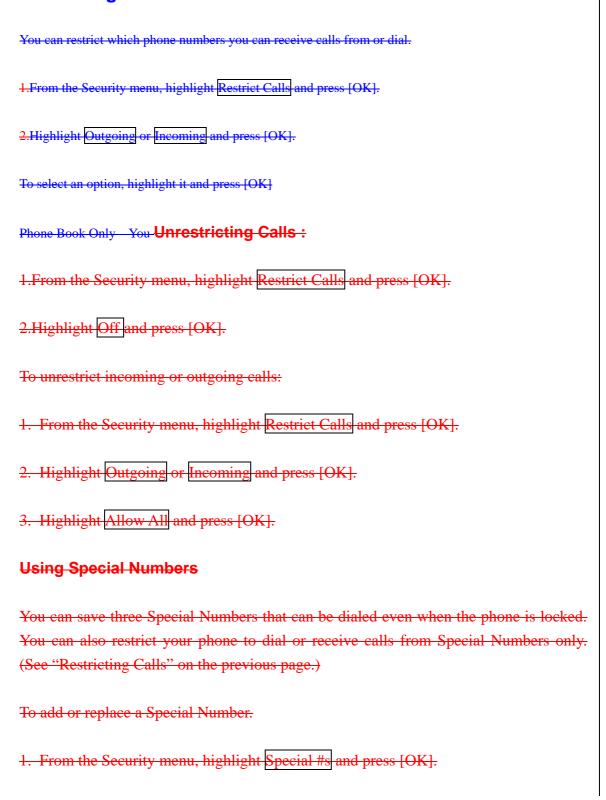
## **Changing the Lock Code**

To change your lock code:

- 1. From the Security menu, highlight Change Lock and press [OK].
- 2. Enter your new lock code.

3. Reenter your new lock code.

## **Restricting Calls**



- 2. Highlight and entry location and press [OK].
- 3. Enter or replace the phone number.
- 4. Highlight OK and press [OK].

Note: There are no speed dialing options associated with Special Numbers.

## **Erasing the Phone Book**

To erase all the names and phone numbers in your Phone Book:

- 1. From the Security menu, highlight Erase PhoneBook and press [OK].
- 2. If you are certain you want to erase the entire contents of the Phone Book, highlight Yes and press [OK].

## **Resetting Your Phone**

Resetting the phone restores all the factory defaults, including the Ringer Types and Display settings. The Phone Book, Call Logs, Scheduler, Messages and Call Alarms are not affected.

To reset your phone:

- 1. From the Security menu, highlight Reset Phone and press [OK].
- 2. If you are certain you want to reset your phone, highlight Yes and press [OK].

#### **Setup**

# Setup Menu ====page 72 7-=====

#### **Data/Fax Mode**

The Sprint PCS SP-510 can send and receive data or fax transmissions through a

personal computer using the optional Data Connectivity Kit. Visit a Sprint PCS Center or dial [#][A][C][C] or 1-800-974-2221 to obtain optional accessories.

Note: The phone must be on a digital network to send or receive data and faxes.

## **Receiving a Fax**

To receive a fax with your phone:

1.From the Main Menu, highlight Setup and press [OK].

Note: The Data Cable must be connected to your phone to view Data/Fax menu options.

- 2. Highlight Data/Fax (In) and press [OK].
- 3. Highlight Incoming Fax and press [OK].

Note: When the phone is in Data/Fax (In) Mode, you cannot make or receive voice calls.

#### **Receiving Data**

To receive data with your phone:

1.From the Main Menu, highlight Setup and press [OK].

Note: The Data Cable must be connected to your phone to view Data/Fax menu options

- 2. Highlight Data/Fax (In) and press (OK).
- 3. Highlight Incoming Data and press (OK).

Note: When the phone is in Data/Fax (In) Mode, you cannot make or receive voice ealls.

## **Returning to Voice Mode**

To return to Voice Mode at the end of a data or fax transmission, highlight Exit Data Mode or Exit Fax Mode and press [OK].

To return to Voice Mode from Data/Fax Mode:

- 1.From the Main Menu, highlight Setup and press [OK].
- 2. Highlight Data/Fax (In) and press [OK].
- 3. Highlight Disable and press [OK].

Note: The phone powers up in Voice Mode, even if it was in Data/Fax Mode when it was powered down. The phone also returns to Voice Mode if the Data Cable is disconnected.

## **Answering Your Phone with the Hands-Free Car Kit**

You can select different answering options when your phone is connected to the Hands-Free Car Kit.

To answer calls automatically or by pressing any key:

- 1. From the Main Menu, highlight Setup and press [OK].
- 2. Highlight Car Use and press [OK].

To select and option, highlight it and press [OK].

- Any Key Answer You can answer calls by pressing any key (not including the [CLR] key, Mouse Key or Volume Control keys).
- Auto Answer Your phone answers incoming calls automatically after five seconds.
- 3. Highlight On and press [OK].

To disable an option, follow steps 1 and 2 and select Off.

## Safety Guidelines

Provided herein is the TIA Safety Information for Wireless Handheld phones. Inclusion of this text in the terminal unit's owner's manual is required for CTIA Certification.

## **TIA Safety Information**

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

#### EXPOSURE TO RADIO FREQUENCY SIGNALS

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

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

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

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

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

#### **ANTENNA CARE**

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

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

#### PHONE OPERATION

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

#### TIPS ON EFFICIENT OPERATION:

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

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

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

#### **DRIVING**

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

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

#### **ELECTRONIC DEVICES**

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

#### **Pacemakers**

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

#### Persons with pacemakers:

- Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference.

• If you have any reason to suspect that interference is taking place, turn your phone OFF immediately

#### **Hearing Aids**

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

#### **Other Medical Devices**

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

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

#### **Vehicles**

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

#### **Posted Facilities**

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

#### **AIRCRAFT**

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

#### **BLASTING AREAS**

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

### POTENTIALLY EXPLOSIVE ATMOSPHERES

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

#### For Vehicles Equipped with an Air Bag

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

#### **Consumer Recycling Information and Logo**

Wireless...The New Recyclable

Your wireless phone can be recycled. Recycling your wireless phone reduces the amount of waste disposed in landfills and allows recycled materials to be incorporated into new products.

CTIA and its members encourage consumers to recycle their phones and have taken steps to promote the collection and environmentally sound recycling of end-of-life wireless devices.

As a wireless phone user, you have an important role in ensuring that this phone is recycled properly. When it comes time to give this phone up or trade it in for a new one, please remember that the phone, the charger, and many of its accessories can be recycled. It's easy. To learn more about CTIA's Recycling Program for Used Wireless Devices, including information on where to recycle wireless devices near you, please visit <a href="https://www.recyclewirelessphones.com">www.recyclewirelessphones.com</a>.



## **FDA Consumer Update**

The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Mobile Phones

#### 1. Do wireless phones pose a health hazard?

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

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

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

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

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

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

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

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

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

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the 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 pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma,

meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

## 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 (<a href="http://www.fcc.gov/oet/rfsafety">http://www.fcc.gov/oet/rfsafety</a>) 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 <u>do not</u> 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 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 (<a href="http://www.fcc.gov/oet/rfsafety">http://www.fcc.gov/oet/rfsafety</a>)
- International Commission on Non-Ionizing Radiation Protection (<a href="http://www.icnirp.de">http://www.icnirp.de</a>)
- World Health Organization (WHO) International EMF Project (<a href="http://www.who.int/emf">http://www.who.int/emf</a>)
- National Radiological Protection Board (UK) (<a href="http://www.nrpb.org.uk/">http://www.nrpb.org.uk/</a>)

## **Consumer Information on SAR (Specific Absorption Rate)**

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

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to 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 1.6W/kg. \* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level, 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 ist 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 1.140 W/kg and when worn on the body, as described in this user guide, is 1.040 W/kg, (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). [Labeling Committee note: if applicable, if body-worn SARs are required]. While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Gant section of <a href="http://www.fcc.gov/oet/fccid">http://www.fcc.gov/oet/fccid</a> after searching on FCC ID BEJVX3300.

Additional information os Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at <a href="http://www.wow-com.com">http://www.wow-com.com</a>.

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