## 6.0 User Manual

LX5400

Ver. 0.1 2003.05.23

## 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.

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.

1

## **SUBJECT**

The LX5400 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(DCN) and Personal Communication Service (PCS). The difference between them is the operating frequency spectrum. Cellular uses 800MHz and PCS uses 1.9GHz. The LX5400 can operate on both frequency, we usually call it Dual-band phone

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/IS-95-A	Protocol between MS and BTS for Cellular
	ANSI J-STD-008	Protocol between MS and BTS for PCS
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
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

## 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

- EX Large, easy-to-read, 8-Line, backlight LCD with status icons.
- ZZ Paging, messaging, voice mail and caller ID.
- ∠∠ 22 key keypads
- ∠∠ Long battery standby and talk times.
- Menu-driven interface with prompt for easy operation and configuration.
- Any key answer, auto reading, one touch and speed dialing with 199 memory locations
- Multi language(Two language : English and Spanish are available as per your need)
- ∠ Optional accessories

## **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 one-slot desktop charger and a rechargeable battery. Please make sure that those accessories are all included.

### **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 0.59 inches from the body. To maintain compliance with FCC RF exposure requirements, use only belt-clips, holsters or similar accessories that maintain a 0.59 inch separation distance between the body and the back of the phone, including the antenna. The use of belt-clips, holsters and similar accessoiries should not contain metallic components its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, 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.

## **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.
- MM The charger or adapter is intended for indoor use only.
- MM 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.

<sup>∠</sup> Do not incinerate.

## **Contents**

Emilied Warrenty Statement
Subjects
Introduction
Highlights
Important Information
Check Accessories
Safety Instructions
Getting Started
Unlocking Your Phone
View of Phone
Installing and Removing the Battery
Turning Your Phone On and Off
Main Menu
Power Save Mode
Menu Navigation
Entering Characters Using the Keypad(T9)
Display Icons
Antenna
Signal Strength
Battery Capacity
Using the AC Adapter
Using Your Phone
Placing a Call
Roaming With Your Sprint PCS Phone™
Calling Experience
Correcting Dialing Mistakes
In Call Options
Incoming Call Notification
Answering Calls
Displaying Your Sprint PCS Phone Number
Setting the Ring Volume to Vibrate
Getting the Most From Sprint PCS Service
New Massage Alerts
Retrieving Page/Text Messages

Page/Text Message Storage
Roaming on to Other Service Providers
(Call History- not functioning)
Page/Text Messages
Erasing Page/Text Messages
Sounds
Adjusting the Volume
Selecting Ring Types for Voice Calls
Tone Length
Display Menu
Security
Locking Your Phone
Unlocking Your Phone
Changing the Lock Code
Answering Your Phone with the Hands-Free Car Kit
Safety Guidelines28
TIA Safety Information28
FDA Consumer Update32
Consumer Information on SAR (Specific Absorption Rate)40

## **Getting Started**

## **Unlocking Your Phone**

If you received your Sprint PCS LX5400 in the mail, you may need to unlock it before making calls.

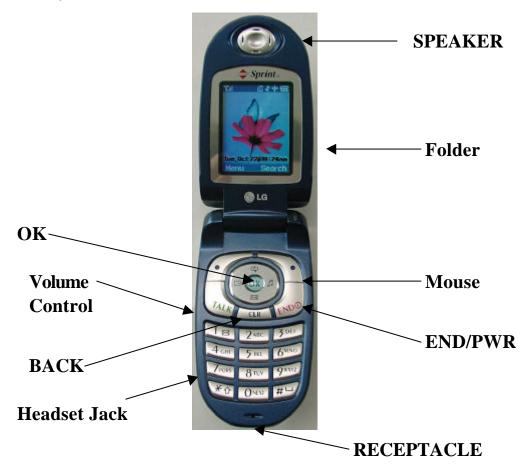
- 1. Press the END/PWR Switch for 2 -3 secs.
- 2. Highlight Unlock and press.
- 3. Enter your four-digit lock code. For security purposes, the code will not be visible as you type.

**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 Sprint PCS Phone Number or 0000.

#### **View of Phone**

- 1. **END/PWR** Switch: Lets you power the phone on or off.
- 2. **Antenna**: Fised antenna provides optimum reception for 800 MHz & 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 headsat.
- 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. **Back**: 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**

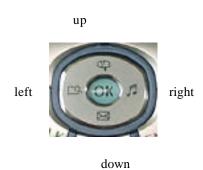
In Standby mode, press left soft key [Menu] to display main menu. There 8 main menus.

#### **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 OK key. 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 History and press OK key . (It may already be highlighted.)
- 2. Press the Mouse Key down to highlight and press OK key .

## **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 to move the cursor left or BACK to erase a character. To clear the entire entry, press and hold BACK for two seconds.

## **Display Icons**

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

ICON	DESCRIPTION
Yal	Signal Strength (full strength)
•	In Use
	No Service
<b>  %</b>	
* •	May result from one of the following:
	∠∠ Searching for service
	≝≝ no service
	Roaming
IK∣	(occurs in a non-Sprint PCS area)
T	New page/text or Browser messages
V	New voicemail <tbd></tbd>
	Battery Charge Status (fully charged)

#### !!! 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 Sprint PCS 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 Sprint PCS LX5400 is equipped with a Lithium Ion (LiIon) battery. It allows you to recharge your

battery before it is fully drained. The battery provides approximately 150 minuets of continuous digital

talk time or approximately 150 hours 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 Sprint PCS-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. Alternatively, you can place the phone in the charging cradle

provided with your phone and connect the AC Adapter to the back of the cradle.

The battery Charge Status icon flashes during charging. When the battery is fully charged, the battery icon

stops flashing.

**Using Your Phone** 

**Making Calls** 

1. Make sure your phone is on

2. Enter a phone number. If you make a mistake while dialing, press [BACK] to erase one digit at a

time. Or, press and hold [BACK] to erase the entire number.

- 15 -

- 3. Press [TALK].
- 4. When you're finished, press [END].

#### **Answering Calls**

- 1. Make sure your phone is on. If your phone is off, incoming calls go to voicemail.
- 2. When your phone rings or vibrates, answer the call by pressing [TALK]. There are several ways to answer an incoming call.
  - Press [TALK]
  - Press any key
  - Open
- 3. To end the call, close the phone or press [END].

#### **Call Waiting**

Your phone beeps when another call is coming in.

#### To answer this call:

- 1. Press [TALK] to connect to the second call.
- 2. Press [TALK] again to connect to your original call.
- 3. You can press [TALK] to alternate between calls

#### **Three-Way Calling**

You can talk to two different people at the same time. When using this feature, the normal airtime rates will be charged for each of the two calls.

- 1. Enter a number you wish to call and press [TALK].
- 2. Once you have established the connection, dial the second number you wish to call and press [TALK]. This puts the first call on hold and dials the second number.
- 3. When you're connected to the second party, press [TALK] once more to begin your three-way call.

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

## **Roaming With Your Sprint PCS Phone**<sup>™</sup>

Your Sprint PCS Phone<sup>TM</sup> is you can use it to make and receive calls in many places.

MM In any city where Sprint PCS provides service.

ME On other PCS CDMA networks there Sprint PCS has implemented roaming agreements.

When you use your phone outside the Sprint PCS 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" on page 7 for network indication icons.) Always dial using 10 digits (area code + number) when calling from outside your Sprint PCS Home Service Area.

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

Your Sprint PCS Phone<sup>TM</sup> 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 Sprint PCS Network. Although certain calling features may not be available, your phone calls are still private and secure.

If you need customer service for any reason while using your phone outside the Sprint PCS Nationwide Network, just dial 611 from your Sprint PCS Phone. However, because you're outside the Sprint PCS Network, you may reach the local service provider's customer service instead of Sprint PCs Customer Care. To be sure that you reach Sprint PCS Customer Care, dial 1-888-211-4PCS.

## **Correcting Dialing Mistakes**

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

### **Redialing Last Outgoing Number**

Press and hold [TALK] 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.
ZZ 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.
ZZ Save - Saves the phone number in your Phone Book. See "Saving a Phone Number" on the
    following page.)
ZZ Find – Displays phone numbers in your Phone Book that contain the entered numbers. (See "Finding
    a Phone Number")
MM Hard Pause - Inserts a Hard Pause. (See "Dialing and Saving Phone Numbers With Pauses")
ZZ 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,
                        . 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

∠∠ 4-Digit Dial – Dials the phone number in your Phone Book that ends with the four digits you enter.

## **In Call Options**

(See "4-digit Dialing")

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

not work when the Roam Confirm option is enabled.)

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 – Let's you dial another phone number. ZE 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: MM The phone rings or vibrates ★ The backlight illuminates MM The screen displays an incoming call message ME The phone number of the caller is displayed of the phone number is available ME The caller's name is displayed if the phone number is in your Phone Book

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

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

Answer – answers the call.

Silent Ringer - Mutes the ringer.

## **Answering Calls**

To answer incoming Sprint PCS calls, open the Flip (in Active Flip Mode) or press [TALK].

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

To answer incoming roam calls, press [TALK].

## **Displaying Your Sprint PCS Phone Number(phone book – not functioning)**

To display your phone number:

1. From the Main Menu, Highlight Phone Info and press [OK]

## **Setting the Ring Volume to Vibrate**

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.

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

## **Getting the Most From Sprint PCS Service**

## **New Massage Alerts**

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

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

Exit – Returns to the Main Menu. (You can also press [BACK].)

**Note:** If you are out of Sprint PCS Service Area coverage, you are not notified of new messages. You will be notified when you reenter a Sprint PCS Service Area.

## **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:

Erase Message – Deletes the message.

 $\mathbb{Z}$  Read – Displays the message again.

Exit – Returns to the Main Menu.

Text Message options:

Extract #s - Extracts phone numbers (if there are numbers contained in the text message).(See the following chapter.)

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.

## **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].

## **Page/Text Message Storage**

Your Sprint PCS LX5400 can store up to 20 page/text messages. When the message memory is 75% full,

a warning message prompts you to erase messages to obtain more memory space.

## **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  $\mathbf{R}$  icon and Digital Roam of Analog Roam are displayed. If there is no service available, the  $\mathbf{\hat{k}}$  icon is displayed.

# (Call History- not functioning) Page/Text Messages

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

## **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].

#### 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 Length
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 Tone Length and press [OK].
3. Highlight Short of Long and press [OK].
Alert Notification
To enable of disable alert sounds:
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.)		
4. Highlight ON or Off and press [OK].  Display		
For information on changing Backlight, Greeting or Contrast settings, see <b>Handy Tips</b> .		
Display Menu		
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 Sprint PCS Phone Number or 0000.		
Security Menu		
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.

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

You can select different answering options when your phone is connected to the Sprint PCS 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 [BACK] 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 Guideline**

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)

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

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

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

#### ANTENNA CARE

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

#### PHONE 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.

## **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 radio frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit 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 (http://www.who.int/emf)
- ?? National Radiological Protection Board (UK) (http://www.nrpb.org.uk/)

## **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 1.17W/kg and when worn on the body, as described in this user guide, is 0.621W/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 BEJLX5400.

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>.

\_\_\_\_\_

<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.