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 date of purchase of the product.

2. The limited warranty extends only 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, but limited to certain countries if specified.

4. The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.

5. Upon request from LG, the consumer must provide acceptable information to 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, and spills of food or liquid.

3. Breakage or damage to antennas unless caused directly by defects in material or workmanship.

4. The Customer Service Department at LG must be notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period for the warranty to apply.

5. Products which have had the serial number removed or made illegible.

6. This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.

7. Damage resulting from use of any non-LG approved accessory. Use of any non-LG approved accessory immediately voids this warranty and LG shall not be responsible for any incidental, consequential, special, or any other damage resulting from the use of any non-LG approved accessory.

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, ARISING 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 countries do not allow the exclusive of limitation 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 Electronics Service
201 James Record Road
Huntsville, AL 35824
Tel : 1-800-793-8896
Website : http://us.lgservice.com

A7110
User Guide

Table of Contents

Unpacking

Check to make sure that you have all the parts shown below.

Handset

Standard Battery

Travel Adapter

User Guide

For Your Safety

Important Information

This user guide contains important information on the use and operation of this phone. Please read all the information carefully for optimal performance and to prevent any damage to, or misuse of, the phone. Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment.

Before You Start

Safety Instructions

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

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

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

IMPORTANT! Please read the TIA SAFETY INFORMATION on page 105 before using your phone.

Safety Information

Please read and observe the following information for the safe and proper use of your phone and to prevent any unanticipated damage. Also, keep the user's manual in an accessible place at all times after reading it.

▶ Unplug the power cord and charger during a lightning storm to avoid electric shock or fire.

▶ Do not use your phone in high explosive areas as the phone may generate sparks.

▶ Do not put your phone in a place subject to excessive dust, and keep the minimum required distance between the power cord and heat sources.

▶ Do not damage the power cord by bending, twisting, pulling, or subjecting it to heat. Do not use the plug if it is loose as it may cause fire or electric shock.

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

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

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

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

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

▶ Charging is displayed on the screen after connecting the travel adapter. Only if the battery is totally empty, it takes long time to display "Charging".

▶ Do not place items containing magnetic components such as a credit card, phone card, bank book or a subway ticket, near your phone. The magnetic strip can be damaged by the phone.

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

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

▶ Do not allow excessive vibration or impact to the phone.

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

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

Body-worn Operation

This device was tested for typical body-worn operations with the back of the phone kept 10mm between the use's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 10mm must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 3/4 inch (2 cm) 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 8 inches (20 cm) 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, visit the FCC website at www.fcc.gov

FCC Part 15 Class B Compliance

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

Cautions for Battery

▶ Do not disassemble.

▶ Do not short-circuit.

▶ Do not expose to high temperature: 60°C (140°F).

▶ Do not incinerate.

Battery Disposal

▶ Please dispose of your battery properly or bring to your local wireless carrier for recycling.

▶ Do not dispose in fire or with hazardous or flammable materials.

Adapter (Charger) Cautions

▶ Using the wrong battery charger could damage your phone and void your warranty.

▶ The adapter or battery charger is intended for indoor use only.

Do not expose the adapter or battery charger to direct sunlight or use it in places with high humidity, such as the bathroom.

Your Phone

Phone Components

1. Earpiece

2. Navigation key

3. Send key

4. Left soft key

5. Side keys

6. Alpha numeric keys

7. Microphone

8. Display screen

9. Confirmation key

10. Message key

11. End /Power key

12. Right soft key

13. Camera key

14. Clear key

15. Infrared port

Your Phone's Features

1. Earpiece

2. Navigation key: Use for quick access to phone functions.

3. Send key: You can dial a phone number and answer incoming calls. Press this key in standby mode to quickly access the most recent incoming, outgoing and missed calls.

4,12. Left soft key/Right soft key: Each of these keys perform the functions indicated by the text on the display immediately above them.

5. Side keys: These keys are used to control the volume of ringtone in standby mode and speaker volume during a call.

6. Alphanumeric keys: These keys are used to dial a number in standby mode and to enter number or characters in edit mode.

7. Microphone: Can be muted during a call for privacy.

8. Display screen: Displays phone status icons, menu items, Web information, pictures and more in full color.

9. Confirmation key: Long press will launch the WAP browser. Allows you to select and confirm menu options.

10. Message key: Use to retrieve or send text messages.

11. End/Power key: Allows you to power the phone on or off, end calls, or return to Standby Mode.

13. Camera key: Press this key to use the camera feature. Directly goes to the camera mode.

14. Clear key: Allows you to delete the characters entered or return you to the previous screen.

15. Infrared port: Indicates that you have activated the infrared features to communicate with an IrDA-compliant device and to send or receive data.

Ear-microphone jack

Antenna

Camera

Camera key

Infrared port

Backlight
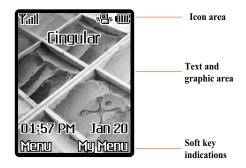
A backlight illuminates the display and the keypad. When you press any key or open the slide, the backlight turns on. It turns off if no key is pressed within a given period of time, depending on the **Backlight Timeout** menu option. To specify the length of time the backlight is active, set the **Backlight Timeout** menu option (Menu 9.2.2). See page 91 for further details.

External Display

Your phone has an external display on the cover. It indicates when you have an incoming call or a message. It also alerts you at the specified time when you set an alarm by turning on its backlight and showing corresponding icon on it.

Display Information

Icon area

Text and
graphic area

Soft key
indications

Area	Description
First line	Displays various icons. See page 18
Middle lines	Displlay messages, instructions and Any information that you enter, such As number to be dialed.
Last line	Shows the functions currently Assigned to the two soft keys.

On-Screen Icons

The table below describes various display indicators or icons that appear on the phone's display screen.
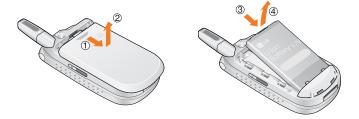
Icon	Description
Y.ıll	Indicates the strength of the network signal.
☎	Indicates a call is in progress.
G.ıll	Indicates that GPRS service is available.
⏰	Indicates the alarm has been set and is on.
▥	Indicates the status of the battery charge.
✉	Indicates the receipt of a message.
◠◡	Indicates the receipt of a voice mail.
〰📳〰	Indicates that the vibration has been set for alert.
🔕	Indicates the silent has been set for alert.
♪	Indicates Ring has been set for alert.
🗓	Indicates the Schedule function.

Getting Started

Installing the SIM Card
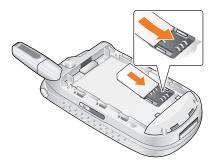
When you subscribe to a cellular network, you are provided with a plug-in SIM card loaded with your subscription details, such as your PIN, any optional services available and many others.
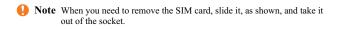
> ⚠️ **Important!** The plug-in SIM card and its contacts can be easily damaged by scratches or bending, so be careful when handling, inserting or removing the card. Keep all SIM cards out of the reach of small children.

1. If necessary, switch off the phone by holding down the 🖉 key until the power-off image displays.

2. Remove the battery. To do so:
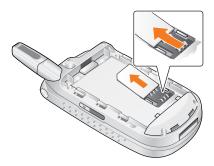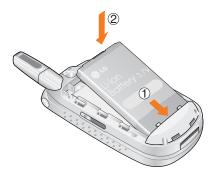
3. Slide the SIM card into the SIM card socket so that it locks the card into place. Make sure that the notched corner is bottom left and the gold contacts of the card face into the phone.

● **Note** When you need to remove the SIM card, slide it, as shown, and take it out of the socket.

4. Position the lugs on the down of the battery into the retaining holder.
Then push the bottom of the battery into position until it clicks.

5. Attach back cover by sliding up into position until it clicks.
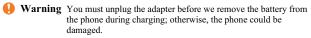
Charging the Battery

Use of unauthorized accessories could damage your phone and invalidate your warranty.

To use the travel adapter provided with your phone:

1. With the battery in position on the phone, connect the lead from the travel adapter to the bottom of the phone. Check that the arrow on the lead connector is facing towards the front of the phone.

2. Connect the adapter to a standard AC wall outlet. Only use the travel adapter that comes included with the package.

Warning You must unplug the adapter before we remove the battery from the phone during charging; otherwise, the phone could be damaged.

3. When charging is finished, disconnect the adapter from the power outlet and from the phone by pressing on the gray tabs on both sides of the connector while pulling the connector out.

⚠ **Notice**

▶ If your phone is powered on while charging, you'll see the bars in the battery indicator icon cycle.
When the battery is fully charged, the bars in the battery indicator icon will flash on and off.

▶ If your phone is powered off, the display will show the charging status. '**Charging**' or '**Full**' will be displayed.

If the battery fails to charge completely:

▶ After turning the phone on and off, please attempt to recharge the battery.

▶ After detaching and reattaching the battery, please attempt to recharge the battery.

Turning Your Phone On and Off

1. Slide the keypad down.

2. Hold down the ⌒ key until the phone switches on.

3. If the phone asks for a PIN, enter the PIN and press the left soft key [OK]. For further details, see page 96.

The phone searches for your network and after finding it, the idle screen, illustrated below. Now, you can make or receive a call.

🔴 **Note** The display language is preset to Automatic at the factory. To change the language, use the Languages menu option (Menu 9.2.3). For further details, see page 92.

4. When you wish to switch the phone off, hold down the ⌒ key until the power-off image displays.

Access Codes

You can use the access codes described in this section to avoid unauthorized use of your phone. The access codes can be changed by using the **Change Codes** feature (Menu 9.5.6).

Security code (4 to 8 digits)

The security code protects the unauthorized use of your phone. The default security code is set to '**0000**' and the security code is required to delete all phone entries and to activate the Restore Factory Settings menu. The security code default setting can be modified from the Security Settings menu.

Barring Password

The barring password is required when you use the Call Barring function. The password is obtained from the service provider when you subscribe to this function. See page 97 for further details.

General Functions

Making a Call

1. Make sure your phone is powered on.

2. Enter a phone number including the area code. To edit a number on the display screen, simply press the ⌧ key to erase one digit at a time.

▶ Press and hold the ⌧ key to erase the entire number.

3. Press the 🔦 key to call the number.

4. When finished, press the 📵 key.

Making a Call by Send Key

1. Press the 🔦 key, and the most recent incoming, outgoing and missed phone numbers will be displayed.

2. Select the desired number by using the navigation key.

3. Press the 🔦 key.

Making International Calls

1. Press and hold the ⓪ key for the international prefix.
The '+' character can be replaced with the international access code.

2. Enter the country code, area code, and the phone number.

3. Press the 🔦 key.

Ending a Call

When you have finished a call, press the 📵 key.

Making a Call From the Contact List

You can store names and phone numbers dialed frequently in the SIM card as well as the phone memory known as the Contact List.

You can dial a number by simply looking up a name in the contact list. For more details on the Contact List feature, please refer to page 86.

Adjusting the Volume

During a call, if you want to adjust the earpiece volume, use the side keys of the phone.

In idle mode, you can adjust the ring volume using the side keys.

Answering a Call

When you receive a call, the phone rings and the flashing phone icon appears on the screen. If the caller can be identified, the caller's phone number (or name if stored in your Address Book) is displayed.

1. Open the Slide and press the ⬐ key or the left soft key to answer an incoming call. If Any Key has been set as the answer mode (Menu 9.4.2), any key press will answer a call except for the 🖉 key or the right soft key.

> 🛈 **Notice**
> ▶ To reject an incoming call, press and hold the side keys on the left side of the phone.
> ▶ If Slide Open has been set as the answer mode (Menu 9.4.2), you do not need to press any key. You can answer the call simply by opening the slide.

2. End the call by closing the phone or pressing the 🖉 key.

> 🛈 **Notice** You can answer a call while using the Address Book or other menu features.

Vibrate Mode (Quick)

Vibrate Mode can be activated by pressing and holding down ✱ key.

Signal Strength

If you are inside a building, being near a window may give you better reception. You can see the strength of your signal by the signal indicator (𝕋.ııl) on your phone's display screen.

Entering Text

You can enter alphanumeric characters by using the phone's keypad. For example, storing names in the Address Book, writing a message, creating scheduling events in the calendar all require entering text.

The following text input methods are available in the phone.

T9 Mode

This mode allows you to enter words with only one keystroke per letter. Each key on the keypad has more than one letter. The T9 mode automatically compares your keystrokes with an internal linguistic dictionary to determine the correct word, thus requiring far fewer keystrokes than the traditional ABC mode.

ABC Mode

This mode allows you to enter letters by pressing the key labeled with the required letter once, twice, three or four times until the letter is displayed.

123 Mode (Numbers Mode)

Type numbers using one keystroke per number. To change to 123 mode in a text entry field, press ⌨ key until 123 mode is displayed.
A long press changes mode to 123.

Symbolic Mode

This mode allows you to enter special characters.

🔸 **Notice** You can select a different T9 language from the menu option. The default setting on the phone is T9 disabled mode.

Changing the Text Input Mode

1. When you are in a field that allows characters to be entered, you will notice the text input mode indicator in the upper right corner of the display.

2. Change the text input mode by pressing ⟨☆⟩. You can check the current text input mode in the upper right corner of the screen.

Using the T9 Mode

The T9 predictive text input mode allows you to enter words easily with a minimum number of key presses. As you press each key, the phone begins to display the characters that it thinks you are typing based on a built-in dictionary. As new letters are added, the word changes to reflect the most likely candidate from the dictionary.

1. When you are in the T9 predictive text input mode, start entering a word by pressing keys ⟨2 abc⟩ to ⟨9 wxyz⟩ Press one key per letter.

 ▶ The word changes as letters are typed - ignore what's on the screen until the word is typed completely.

 ▶ If the word is still incorrect after typing completely, press the down navigation key once or more to cycle through the other word options.

Example: Press ⟨4 ghi⟩ ⟨6 mno⟩ ⟨6 mno⟩ ⟨3 def⟩ to type **Good**
         Press ⟨4 ghi⟩ ⟨6 mno⟩ ⟨6 mno⟩ ⟨3 def⟩ [down navigation key] to type **Home**

 ▶ If the desired word is missing from the word choices list, add it by using the ABC mode.

2. Enter the whole word before editing or deleting any keystrokes.

3. Complete each word with a space by pressing the (0⌣) key or)ⁱ⁾) key.

To delete letters, press ⌐c⌐. Press and hold down ⌐c⌐ to erase the letters continuously.

> 🛈 **Notice** To exit the text input mode without saving your input, press 🗗. The phone returns to the previous menu level.

Using the ABC Mode

Use the (2abc) to (9wxyz) keys to enter your text.

1. Press the key labeled with the required letter:

- ▶ Once for the first letter
- ▶ Twice for the second letter
- ▶ And so on

2. To insert a space, press the (0⌣) key once. To delete letters, press the ⌐c⌐ key. Press and hold down the ⌐c⌐ key to erase the letters continuously.

🔶 **Notice** Refer to the table below for more information on the characters available using the keys.

Key	Characters in the Order Display	
	Upper Case	Lower Case
1	. , / ? ! - : ' " 1	. , / ? ! - : ' " 1
2	A B C 2 Ä À Á Â Ã Å Æ Ç	a b c 2 ä à á â ã å æ ç
3	D E F 3 Ë È É Ê	d e f 3 ë è é ê
4	G H I 4 ï ì í î Ğ	g h i 4 ï ì í î ğ
5	J K L 5	j k l 5
6	M N O 6 Ñ Ö Ø Ò Ó Ô Õ Œ	m n o 6 ñ ö ø ò ó ô œ
7	P Q R S 7 ß Ş	p q r s 7 ß ş
8	T U V 8 Ü Ù Ú Û	t u v 8 ü ù ú û
9	W X Y Z 9	w x y z 9
0	Space 0	Space 0

Using the 123 (Numbers) Mode

The 123 Mode enables you to enter numbers in a text message (a telephone number, for example).

Press the keys corresponding to the required digits before manually switching back to the appropriate text entry mode.

Using the Symbol Mode

The Symbol Mode enables you to enter various symbols or special characters.

To enter a symbol, press the ✎ key. Use the navigation keys to select the desired symbol and press the [OK] key.

Selecting Functions and Options

Your phone offers a set of functions that allow you to customize the phone. These functions are arranged in menus and sub-menus, accessed via the two soft keys marked ⊟ and ⊟. Each menu and sub-menu allows you to view and alter the settings of a particular function.

The roles of the soft keys vary according to the current context; the label on the bottom line of the display just above each key indicates its current role.

Press the left soft key to access the available Menu.

Press the right soft key to access the available My Menu.

Address Book

You can store phone numbers and their corresponding names in the memory of your SIM card.

In addition, you can store up to 250 numbers and names in the phone memory.

The SIM card and phone memory, although physically separate, are utilized like a single entity known as the Contact List. (See page 86 for details)

In-Call Menu

Your phone provides a number of control functions that you can use during a call. To access these functions during a call, press the left soft key [**Options**].

During a Call

The menu displayed on the handset screen during a call is different than the default main menu displayed when in idle screen, and the options are described below.

Making a Second Call

You can get a number you wish to dial from the Address Book to make a second call. Press the left soft key then select Contact List.

Swapping Between Two Calls

To switch between two calls, press the left soft key or $\searrow$ key, and then select **Swap**.

Answering an Incoming Call

To answer an incoming call when the handset is ringing, simply press the $\searrow$ key. The handset is also able to warn you of an incoming call while you are already on a call. A tone sounds in the earpiece, and the display will show that a second call is waiting. This feature, known as **Call Waiting**, is only available if your network supports it. For details of how to activate and deactivate it see **Call Waiting** (Menu 9.4.4).

If Call Waiting is on, you can put the first call on hold and answer the second, by pressing $\searrow$.

Rejecting an Incoming Call

You can reject an incoming call without answering by simply pressing the ⟨⟩ key.

During a call, you can reject an incoming call by pressing the ⟨⟩ key.

Muting the Microphone

You can mute the microphone during a call by pressing the [**Options**] key then selecting **Mute** or right soft key **[Mute]**. The handset can be unmuted by pressing the **Unmute** menu or right soft key **[Unmute]**. When the handset is muted, the caller cannot hear you, but you can still hear them.

Conference Calls

The conference service provides you with the ability to have a simultaneous conversation with more than one caller, if your network service provider supports this feature. A conference call can only be set up when you have one active call and one call on hold, both calls having been answered. Once a conference call is set up, calls may be added, disconnected or separated (that is, removed from the conference call but still connected to you) by the person who set up the conference call. These options are all available from the In-Call menu. The maximum callers in a conference call are five. Once started, you are in control of the conference call, and only you can add calls to the conference call.

Making a Second Call

You can make a second call while currently on a call. Enter the second number and press the ☏. When the second call is connected, the first call is automatically placed on hold. You can swap between calls, by pressing the ☏ key.

Setting Up a Conference Call

To set up a conference call, place one call on hold and while the active call is on, press the left soft key and then select the Join menu of Conference call.

Activate the Conference Call on Hold

To activate a conference call on hold, press the ☏ key.

Adding Calls to the Conference Call

To add a call to an existing conference call, press the left soft key, and then select the Join menu of Conference call.

Private Call in a Conference Call

To have a private call with one caller from a conference call, display the number of the caller you wish to talk to on the screen, then press the left soft key. Select the Private menu of Conference call to put all the other callers on hold.

Ending a Conference Call

Currently displayed caller from a conference call can be disconnected by pressing the key.

Menu Tree

The following illustration shows the available menu structure and indicates the:

▶ Number assigned to each menu option.
▶ Page where you can find the feature description.

＊: Shown only if supported by CPHS (Common PCS Handset Specification)

Menu Tree

✳: Shown only if supported by CPHS (Common PCS Handset Specification)

✱: Shown only if supported by CPHS (Common PCS Handset Specification)　　**41**

Recent Calls

You can check the record of missed, received, and dialed calls only if the network supports the Calling Line Identification (CLI) within the service area.

The number and name (if available) are displayed together with the date and time at which the call was made. You can also view call times.

Missed Calls   *Menu 1.1*

This option lets you view the last 10 unanswered calls. You can also:

• View the number if available and call it, or save it in the Address Book

• Enter a new name for the number and save both in the Address Book

• Send a message by this number

• Delete the call from the list

Dialed Calls   *Menu 1.2*

This option lets you view the last 20 outgoing calls (called or attempted). You can also:

• View the number if available and call it or save it in the Address Book

• Enter new name for the number and save both in the Address Book

• Send a message by this number

• Delete the call from the list

Received Calls   *Menu 1.3*

This option lets you view the last 10 incoming calls. You can also:

• View the number if available and call it, or save it in the Address Book

• Enter a new name for the number and save both in the Address Book

• Send a message by this number

• Delete the call from the list

Delete Recent Calls   *Menu 1.4*

Allows you to delete **Missed Calls** and **Received Calls** lists. You can delete **Dialed Calls** and **All Calls** lists at one time.

Call Duration   *Menu 1.5*

Allows you to view the duration of your incoming and outgoing calls. You can also reset the call times. The following timers are available:

Last Call *(Menu 1.5.1)*

Length of the last call.

Received Calls *(Menu 1.5.2)*

Length of the incoming calls.

Dialed Calls *(Menu 1.5.3)*

Length of the outgoing calls.

All Calls *(Menu 1.5.4)*

Total length of all calls made and incoming calls since the timer was last reset.

Reset All *(Menu 1.5.5)*

Allows you to clear the length of all calls by pressing the left soft key [Yes].

Data Information   *Menu 1.6*

You can check the amount of data transferred over the network through the GPRS information option. In addition, you can also view how much time you are online.

🔴 **Notice GPRS** General Packet Radio Service

Call Duration *(Menu 1.6.1)*

You can check the duration of Last call and All calls. You can also reset the call timers.

Data Volume *(Menu 1.6.2)*

You can check The Sent, Recevied or All data volumes and Reset all.

Messaging

This menu includes functions related to SMS (Short Message Service), MMS (Multimedia Message Service), voice mail, as well as the network's service messages.

Create New Message   *Menu 2.1*

Text *(Menu 2.1.1)*

You can write and edit text message, checking the number of message pages.

1. Enter the **Messaging** menu by pressing the left soft key [Select].

2. If you want to write a new message, select **Create New Message**.

3. To make text input easier, use T9.

4. Press [Insert] to attach the followings.

5. If you want to set option for your text, or to finish your writing, press the left soft key [Options].

> **Note** The phone which supports EMS release 5 is available to send colour pictures, sounds, text styles, etc.. The other party may not receive pictures, sounds or text styles you sent properly if the phone does not support such options.

Insert

▶ **Symbol:** You can add special characters.

▶ **Graphic:** You can insert the Default graphics or graphics in My pictures that are available for short messages.

▶ **Sound:** You can insert sounds that are available for short messages.

▶ **Text templates:** You can use Text templates already set in the phone.

▶ **Address Book:** You can add phone numbers or e-mail addresses in Address Book.

▶ **Business card:** You can add your Business card to the message.

Options

▶ **Send To:** Sends text messages.

   1. Enter numbers of recipient.

   2. Press ☲ key to add more recipients.

   3. You can add phone numbers in the address book.

   4. Press the left soft key after entering numbers.

   All messages will be automatically saved in the outbox folder, even after a sending failure.

▶ **Save To Drafts:** Stores messages in Drafts.

▶ **Font:** You can select **Size** and **Style** of fonts.

▶ **Color:** You can select **Color** of foreground and background.

▶ **Alignment:** You can make the message contents aligned **Left, Center** or **Right**.

▶ **Add T9 dictionary:** You can add your own word. This menu can be shown only when edit mode is **Predictive (T9Abc/T9abc/T9ABC)**.

▶ **T9 Language:** Select a T9 input mode.

▶ **Exit:** If you press **Exit** while writing a message, you can end the writing message and back to the Message menu. The message you have written is not saved.

Multimedia *(Menu 2.1.2)*

You can write and edit multimedia messages, checking message size.

1. Enter the **Messaging** menu by pressing the left soft key [Select].

2. If you want to write a new message, select Write multimedia message.

3. You can create a new message or choose one of the multimedia message templates already made.

4. Press **Insert** to add Symbol, Graphic, Photo, Sound, Video, New Slide, Text templates, Address Book or Business card.

Options

▶ **Send To:** You can send multimedia messages to multiple recipients, prioritise your message, and make it sent later as well.

> ⚠ **Note** All messages will be automatically saved in the outbox folder, even after a sending failure.
>
> Check with your service provider if the Priority service is available.

▶ **Preview:** You can preview multimedia messages you wrote.

▶ **Save:** You can save multimedia messages **To Drafts** or **As template**.

▶ **Edit Subject:** You can edit subject.

▶ **Move To Slide:** You can move to previous or next slide.

▶ **Delete Slide:** You can delete current slides.

▶ **Set Slide Format**

   * **Set timer:** You can set timer for slide, text, picture and sound.

   * **Swap text and picture:** You can switch the position of picture and text of the message.

▶ **T9 Language:** Select a T9 input mode.

▶ **Exit:** You can back to the Message menu.

❶ **Note** If you select the picture (15K) on writing multimedia message, loading duration will take around 15 seconds at least. Furthermore, you can't activate any key during loading time. After 15 seconds, it is available to write multimedia message.

Inbox   *Menu 2.2*

You will be alerted when you have received messages. They will be stored in Inbox.

In Inbox, you can identify each message by icons. For detail, see the icon directive.

Icon	Icon directive
✉	Multimedia message
✉	Short message
▭	SIM message
✉	Read multimedia message
✉	Read text message
✉	Push message
⚑	Notified multimedia message

If the phone shows 'No space for SIM message', you have to delete only
SIM messages from Inbox. If the phone displays 'No space for message',
you can make space of each repository as deleting messages, media and
applications.

✳ **SIM message**

   SIM message means the message exceptionally stored in SIM card. You
   can move this message to the phone.

For notified multimedia message, you have to wait for downloading and
processing of the message. For notification setting, see (Menu 2.8.2) for
detail.

To read a message, select one of the messages by pressing the left soft key.

▶ **Reply:** You can reply to the sender.

▶ **Delete:** You can delete the current message.

▶ **Forward:** You can forward the selected message to another party.

▶ **Extract:** You can extract picture, sound and text. They will be saved in
   My folder or Address Book.

▶ **Return call:** You can call back to the sender.

▶ **View information:** You can view information about received messages;
   Sender's address, Subject (only for Multimedia message), Message date
   & time, Message type, Message size.

▶ **Delete all:** You can delete all messages.

Outbox

You can see sent and unsent messages here. For sent message, you can see the delivery status.

The browsing is same as that for the inbox message.

Icon	Icon directive
	MMS Sent
	MMS Unsent
	MMS delivery confirmed
	SMS sent
	SMS unsent
	SMS Delivery confirmed

✳ **When you already sent the message:**

▶ **Forward:** You can forward the current message to other recipients.

▶ **Delete:** You can delete the current message.

▶ **View information:** You can view information about outbox messages; Recipient's address, Subject (only for Multimedia message), Message date & time, Message type, Message size.

✳ **When you didn't send the message:**

▶ **Send:** You can send the message.

▶ **Delete:** You can delete the current message.

▶ **View information:** You can view information about outbox messages.

▶ **Send all:** You can send all messages didn't send.

▶ **Delete all:** You can delete all messages didn't send.

Drafts
Menu 2.4

You can view the messages saved as a draft. The draft messages are listed with the date and time when they were saved.

The following options are available.

▶ **Edit:** Modifies the massage you choose.

▶ **Delete:** Deletes the message you choose.

▶ **View information:** To view the information of the message.

▶ **Delete all:** Deletes all of the messages in the folder.

Chat
Menu 2.5

This menu option connects to Cingular's chat site.

✳ Voice Mail
Menu 2.6

This menu provides you with a quick way of accessing your voice mailbox (if provided by your network).
Before using this feature, you must enter the voice server number obtained from your service provider.

When new voicemail is received, the symbol will be displayed on the screen. Please check with your network service provider for details of their service in order to configure the handset accordingly.

Listen To Voice Mail *(Menu 2.6.1)*

Before using this feature, you must enter the voice server number obtained from your service provider (see menu option 2.6.2). You can then select this option and press the left soft key [**OK**] to listen to your messages.

You can quickly connect to the first voice server by pressing and holding the ⌇ key in Idle Mode.

✳: Shown only if supported by SIM card

Voice Mailbox Number *(Menu 2.6.2)*

Allows you to change the voice mail server number, if necessary.

> **Note** Voice Mail is a network feature. Please contact your service provider for further

Templates   *Menu 2.7*

Text *(Menu 2.7.1)*

There are 6 predefined messages in the list. You can view and edit the template messages or create new messages.

The following options are available.

▶ **Edit:** Allows you to write a new message or edit the selected template message.

▶ **Send Via**

   * **Text Message:** Sends the selected template message by SMS.

   * **Multimedia Message:** Sends the selected template message by MMS.

▶ **Delete:** Allows you to delete the selected template message.

Multimedia *(Menu 2.7.2)*

For further details, see page 47~48.

▶ **Send To:** You can send multimedia messages to multiple recipients, prioritise your message, and make it sent later as well.

> **Note** All messages will be automatically saved in the outbox folder, even after a sending failure.
>
> Check with your service provider if the Priority service is available.

▶ **Preview:** You can preview multimedia messages you wrote.

▶ **Save:** You can save multimedia messages **To Drafts** or **As template**.

▶ **Edit Subject:** You can edit subject.

▶ **Move To Slide:** You can move to previous or next slide.

▶ **Delete Slide:** You can delete current slides.

▶ **Set Slide Format**

  * **Set timer:** You can set timer for slide, text, picture and sound.

  * **Swap text and picture:** You can switch the position of picture and text of the message.

▶ **T9 Language:** Select a T9 input mode.

▶ **Exit:** You can back to the Message menu.

> ❶ **Note** If you select the picture (15K) on writing multimedia message, loading duration will take around 15 seconds at least. Furthermore, you can't activate any key during loading time. After 15 seconds, it is available to write multimedia message.

Business Card *(Menu 2.7.3)*

This option allows you to make your own name card. Key in the Name, Mobile number, Office number, Fax number and E-mail address.

▶ **Edit:** Allows you to write a new message or edit the selected name card.

▶ **Send Via**

  * **Text Message:** Sends the selected name card by SMS.

  * **Multimedia Message:** Sends the selected name card by MMS.

▶ **Delete:** Allows you to delete the selected name card.

Settings *Menu 2.8*

Text Messages *(Menu 2.8.1)*

▶ **Message Center Number:** If you want to send the text message, you can receive the address of SMS center through this menu.

▶ **Email Gateway:** You can send the text message to Email Address via this gateway.

▶ **Message Subject:** You can enter SMS Subject when this menu is on.

▶ **Message Types:**
  Text, Voice, Fax, Natl. Paging, X.400, Email, ERMES
  Usually, the type of message is set to **Text**. You can convert your text into alternative formats. Contact your service provider for the availability of this function.

▶ **Validity Period:** This network service allows you to set how long your text messages will be stored at the message centre.

▶ **Delivery Report:** If you set to **Yes**, you can check whether your message is sent successfully.

▶ **Reply Via Same Message Center:** When a message is sent, it allows the recipients to reply and charge the cost of the reply to your telephone bill.

Multimedia Messages *(Menu 2.8.2)*

▶ **Priority:** You can set the priority of the message you choose.

▶ **Message Subject:** You can enter SMS Subject when this menu is on.

▶ **Validity Period:** This network service allows you to set how long your text messages will be stored at the message centre.

▶ **Delivery Report:** If it is set to **Yes** in this menu, you can check whether your message is sent successfully.

▶ **Auto Download:** If you select **On**, you receive multimedia messages automatically. If you select **Off**, you receive only notification message in the inbox and then you can check this notification.

▶ **Access Point:** If you select multimedia message server, you can set URL for multimedia message server.

▶ **Permitted Message Types**

Personal: Persornal message.
Advertisements: Commercial message.
Information: Necessary information.

Download Messages *(Menu 2.8.3)*

You can set the option whether you will receive the message or not.

Memory Status *Menu 2.9*

You can check free space and memory usage of each repository, SIM memory. You can go to each repository menu.

Games & Apps

Java is a technology developed by Sun Microsystems. Similar to the way you would download the Java Applet using the standard Netscape or MS Internet Explorer browsers, Java MIDlet can be downloaded using the WAP enabled phone. Depending on the service provider, all Java based programs such as Java games can be downloaded and run on a phone. Once downloaded, the Java program can be viewed within the Games & Apps menu where you can select, execute or delete. The Java program files saved in the phone are in .JAD and .JAR formats.

> **Note** The JAR file is a compressed format of the Java program and the JAD file is a description file that includes all detailed information. From the network, prior to download, you can view all detailed file descriptions from the JAD file.

> **Warning** Only J2ME (Java 2 Micro Edition) based programs will run in a phone environment.
> The J2SE (Java 2 Standard Edition) based programs will only run in a PC environment.

Shop Games   *Menu 3.1*

This menu option connects to Cingular's game download site.

Games & Apps   *Menu 3.2*

Main Screen, Java' main menu, has a Preinstalled folder already created, and adds it to the list when a new folder is created or downloaded games are stored.

After selecting a folder, and then press Menu, sub menus available to several options are displayed.

▶ **Open:** Launch the game.

▶ **Delete:** Delete the game.

▶ **Information:** Show all the information on the game.

▶ **Send Information:** Selected Java MIDlet information such as MIDlet name, size, version, vendor and jad URL can be sent via SMS.

▶ **Update:** Connect to the server and download the new version of the stored game.

▶ **Rename:** Rename the game.

▶ **Permissions:** Use airtime may cost you money, may require a special cable to function and may cause any running midlet to be interrupted.

▶ **Authentication:** Delete or disable trusted third part Protection Domain Root certifications.

▶ **New Folder:** Create a new folder.

▶ **Move:** Move the stored game to other folder.

If you choose a Preinstalled game, several sub menus (Open, Information and Send information) are displayed, and choosing Information will show you the information for the games provided by default.

Favorites   *Menu 3.3*

When a new Java program is downloaded using the WAP, the address from which a download takes place is known as a bookmark. The Java menu includes a bookmark list for downloading Java programs and this bookmark list can be viewed from the Favorites menu.

▶ **Connect:** Selected address in the bookmark is used for data connection. After successful connection, desired Java program can be downloaded from the list.

▶ **View:** Detailed information on a bookmark can be viewed such as name of bookmark and address of bookmark.

▶ **Delete:** Selected bookmark is deleted. Deleted bookmark cannot be restored so caution is required when deleting bookmarks.

▶ **Edit:** Selected bookmark can be edited. Editing a bookmark is done in the order of URL → Title → Profile (Access Point) → User ID → Password. When creating a new bookmark, same order is followed. The service provider can require user ID and password information, but if none is provided, no input is necessary.

▶ **New Favorite:** New bookmark is added. If there is no Bookmark, you get a display indicating that there is no Bookmark. Bookmarks can be added by pressing the left soft key [Add].

▶ **Send URL:** Selected bookmark URL can be sent via SMS.

▶ **Delete All:** This deletes all of the selected bookmark as well as the bookmarks directory within the Games & Apps menu.

> 🔶 **Note** After selecting the Connect function to access the Java MIDlet
> Provider's server, you may choose one of many Java programs to
> download and install into your phone. Once connected to the server,
> the Go button can be pressed to view the JAD information on a desired
> program. The Get button will begin the download and install process.
> The download and install process will take place simultaneously and
> once download is complete you can immediately run the Java program.
> The installed Java program can be selected to run at a later time from
> the **Games & Apps** menu.

Information   *Menu 3.4*

The downloaded programs using the WAP are stored in the phone memory. There is a maximum memory capacity in a phone and once you exceed this memory, you will not be able to store any more programs. The View Information menu allows you to check the available memory capacity in a phone.

Memory Status *(Menu 3.4.1)*

Displays maximum memory capacity and total available memory information.

Java Version *(Menu 3.4.2)*

Displays current Java version.

MEdia Mall

Shop Ringtones
Menu 4.1

This menu option connects to Cingular's ringtone download site.

🟠 **Note** Additional charges my incur when downloading ringtones. Contact your service provider for further information.

Shop Games
Menu 4.2

This menu option connects to Cingular's game download site.

🟠 **Note** Additional charges my incur when downloading games. Contact your service provider for further information.

Shop Graphics
Menu 4.3

This menu option connects to Cingular's graphic download site.

🟠 **Note** Additional charges my incur when downloading graphics. Contact your service provider for further information.

Shop Multimedia
Menu 4.4

This allows you to connect to http://mmsstore.cingular.com URL and download multimedia contents.

🟠 **Note** Additional charges my incur when downloading graphics. Contact your service provider for further information.

Shop Applications
Menu 4.5

This menu option connects to Cingular's application download site.

MEdia Home
Menu 4.6

Connect to a homepage. The homepage may be the site which is defined in the activated profile. It will be defined by the Service Provider if you have not defined it in the activated profile. For further details, see page 73.

MEdia Net

You can access various WAP (Wireless Application Protocol) services such as banking, news, weather reports, and flight information. These services are specially designed for mobile phones and they are maintained by the WAP service providers.

Check the availability of WAP services, pricing and tariffs with your network operator and/or the service provider whose service you wish to use. Service providers will also give you instructions on how to use their services.

Please contact your service provider to open an Internet account. To use the Web Browser, you must indicate your phone number via the **Own number** menu option (See page 90 for further details.)

To launch the browser in standby mode, press and hold down the $\times$ key.

Once connected, the homepage is displayed. The content depends on the service provider.

You can open any WWW page by entering its URL address.
To exit the browser at any time, press the key. The idle screen is displayed.

Navigating with the WAP Browser

You can surf the Internet using either the phone keys or the WAP Browser menu.

Using the Phone Keys

When surfing the Internet, the phone keys function differently from the phone mode.

Key	Description
up/down navigation key	Scroll each line of the content area

Using the WAP Browser Menu

There are various menu options available when surfing the Wireless Web.

🔴 **Note** The WAP Browser menus may vary, depending on your version of the browser.

MEdia Net   *Menu 5.1*

Connect to a homepage. The homepage may be the site which is defined in the activated profile. It will be defined by the Service Provider if you have not defined it in the activated profile.

Favorites   *Menu 5.2*

Your phone may have some pre-installed bookmarks for sites not affiliated with LG. LG does not warrant or endorse these sites. If you choose to access them, you should take the same precautions, for security or content, as you would with any site.

Options in the Favorites view

Options available in the Bookmarks are: Connect, View, Edit, Move, Delete, New Bookmark, New Folder and Send URL

▶ **Connect:** Connect to the URL address.

▶ **View:** View the URL address of the Favorites.

▶ **Delete:** Revise the name of selected folder.

▶ **Edit:** Modify the Favorites.

▶ **New Favorite:** Add a new favorite manually.

▶ **Send URL:** Allows the stored URL under Favorites to be sent via SMS to another person.

▶ **Delete All:** Allows you to erase all favorites.

Go To URL
Menu 5.3

You can directly connect to the site you want. You need to enter a specific URL.

Access Point
Menu 5.4

A Profile is the network information used to connect to the internet.
Cingular supports three kinds of profiles: MEdia Net, Home and Roam.
MEdia Net is used to connect to the internet using GPRS,
Home uses CSD (Circuit Switched Data) with Cingular gateways, and
Roam uses CSD without the Cingular network.
Because Cingular also selects a bearer automatically according to the current network status, the user doesn't need to select any of them.

Each profile has submenus as follows:

MEdia Net	Home	Roam
1. Activate	**1.** Activate	**1.** Activate
2. Settings	**2.** Settings	**2.** Settings
3. Rename	**3.** Rename	**3.** Rename
4. Add New	**4.** Add New	**4.** Add New
5. Delete	**5.** Delete	**5.** Delete
6. Delete All	**6.** Delete All	**6.** Delete All

▶ **Activate:** Set a current profile as a default.

▶ **Settings:** Edit the various items of the current profile.

▶ **Rename:** Revise the name of profile.

▶ **Add New:** Create new profile.

▶ **Delete:** Delete the profile.

▶ **Delete All:** Allows all Profiles within the Access Point to be deleted so please take precaution prior to using this option.

🛈 **Note** The changes using these options may affect the other application function.

Cache Settings

The information or services you have accessed are stored in the cache memory of the phone.

Clear Cache *(Menu 5.5.1)*

Remove all contexts saved in cache.

Allow Cache *(Menu 5.5.2)*

Set a value whether a connection attempt is made through cache or not.

🛈 **Note** A cache is a buffer memory, which is used to store data temporarily.

Cookie Settings

The information or services you have accessed are stored in the cookie.

▶ **Delete Cookies:** Remove all cookies.

▶ **Allow Cookies:** Set a value whether a connection attempt is made through cookie or not.

Security Certificates

A list of the available certificates is shown.

Information

The WAP Browser version is displayed.

Instant Messaging

Instant Message feature can only be used with the support of the network operator or the community. For Instant Message users a valid [†] User ID (Screen Name/ ICQ#/ Yahoo ID [/E-mail Address]) will be required in order to Login (Sign On/Connect/Sign In) and exchange messages as well as check the online status.

There are three ways to use the Instant Message feature.

1. Through the Main Menu.

2. Through the Message box Menu (Pressing and holding the right navigation key).

3. Through the IM hotkey (the left navigation key). Short pressing the hotkey will bring up the Login screen and long pressing the hotkey will automatically begin the login process for the IM community selected previously.

The menu items below might not appear since not all IM communities support the various options. Also the menu strings may appear differently based on the selected IM communities.

[†] User ID is general term used in IM menu however a specific term is dependent on the community such as AIM/ICQ/Yahoo [/MSN]

Offline Menu

Login (Sign On/Connect/Sign In)

This allows users to Login by filling in the User ID (Screen Name/ICQ#/Yahoo ID [/E-mail Address]) and Password.

Saved Conversations

This is where a user can view saved conversation.

Settings (Preferences)

▶ **Screen Name:** You may select the Screen Name to be used while in the Group chat service.

▶ **Availability (My Status):** You may select your availability status (Available) to Not Available (Away / Do Not Disturb / Busy).

▶ **Mood:** You may select your current mood as in Happy, Sad, Angry, Jealous, In Love, Sleep, etc.

▶ **Status Text:** You may set your current status in free text format.

⚠ **Note** Items are showed up only where a specific IM provider is selected.

IM Provider

This menu option offers the ability to select a defualt Community out of several providers like AIM/ICQ/Yahoo [/MSN] and store your login information such as the User ID (Screen Name/ ICQ#/ Yahoo ID [/E-mail Address]) and Password.

▶ **Activate:** You may select the default Community.

▶ **Settings (Preferences)**

  • **Change User ID (Screen Name/ ICQ#/ Yahoo ID [/E-mail Address]) and Password:** You can store the User ID (Screen name/ ICQ#/ Yahoo ID [/E-mail Address]) and the Password.

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

  • **Binding Protocol:** You can select the Bearer type such as SMS or HTTP.

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

When SMS is selected

• **SMS Gateway Number:** You can change the SMS gateway number.

When HTTP is selected

• **IM Server:** You can change the IP address and port number of IM server.

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

• **DNS Address:** You can change the DNS address.

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

• **Internet Profiles:** You can change the values of Internet profiles.
  - **Bearer:** You can change the type of bearer such GPRS or Data.
  - **GPRS (Data) Settings:** You can change the detail setting values of GPRS (Data).

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

▶ **Rename:** You can change the Community name.

▶ **Delete:** You can delete the Community information

▶ **Delete All:** You can delete all information related to the Community, but Default Community settings are preserved.

⚠ **Note** When changing or adding a new Community, please check with your Network provider.

▶ **Add New Provider:** You can add a new Community.

Online Menu / 1 to 1 conversation

After successful Login (Sign On/Connect/Sign In), a contactlist with contacts (buddies/friends) will appear on screen.

Depending on the cursor location in the contactlist (buddylist/friendslist), following menu options will be available.

When cursor is located on the Conversations List

Conversations List contains not only contact which conversation is already opened but also unknown Contact (Stranger)

View/Hide Contacts (View/Hide Buddies, Collapse/Open List): This provides the option to view or hide contacts (buddies/friends) from the selected list.

Chat (Send IM / Send Message): This offers the ability send a message to unknown contact. When selected, User ID (Screen Name/ ICQ#/ Yahoo ID [/E-mail Address]) must be typed in prior to starting an IM session or conversation.

▶ **Settings (Preferences)**

- Screen Name: You may select the Screen Name to be used while in the Group chat service.

- Availability (My Status): You may select your availability status (Available) to Not Available (Away / Do Not Disturb / Busy).

- Mood: You may select your current mood as in Happy, Sad, Angry, Jealous, In Love, Sleep, etc.

- Status Text: You may set your current status in free text format.

- Watcher List: You may view contacts who can access your presence information.

- View Options (Show): You may allow only contacts (buddies/friends) online you're your contactlist (buddylist/friendslist) or everyone to view.

▶ **Saved Conversations:** You may view or delete the stored conversation session.

▶ **Logout (Sign Off / Disconnect / Sign Out):** This begins the Logout (Sign Off / Disconnect /Sign Out) process.

When cursor is located on the Conversations List

▶ **Chat (Send IM/Send Message)/View (Open):** Chat (Send IM/Send Message) will allow you to converse with the selected Unknown Contact (Stranger) and View (Open) shows conversation of the contact which conversation is already started.

▶ **Block/Unblock Contact (Block/Unblock Buddy):** This allows or blocks conversation with the selected Unknown Contact (Stranger).

▶ **Add To List (Friend List):** This allows you to add the Unknown Contact to the Contact (Buddy/Friends) list. After the selecting the contactlist (buddylist/friendslist), you may add the Unknown Contact and once completed it is automatically deleted from the Unknown List.

▶ **End Conversation:** Selected Unknown Contact is deleted and the conversation is ended.

▶ **Settings (Preferences):** Please refer to the Settings Menu on pages 91~92 (Menu 9.1).

▶ **Saved Conversations:** You may view or delete the stored conversation session.

▶ **Logout (Sign Off/Disconnect/Sign Out):** This begins the Logout (Sign Off/Disconnect/Sign Out) process.

When cursor is located on the Contactlist (Buddylist/Friendlist)

▶ **View/Hide Contacts (View/Hide Buddies, Collapse/Open List):** This allows the selected contacts (buddies/friends) in the list to be viewed or hidden.

▶ **Refresh List (Refresh Friend List):** This refreshes the presence information of the contacts (buddies/friends) within the contactlist (Buddylist/friendslist).

▶ **Rename List:** This renames the selected contactlist.

▶ **Add List:** This adds a new contactlist.

▶ **Add Contact (Buddy/a Friend):** This adds the selected contact (buddy/friend) to the contactlist (buddylist/friendslist), or searches in the Community.

▶ **Delete List:** This deletes the selected contactlist.

▶ **Settings (Preferences):** Please refer to the Settings Menu on page 91 (Menu 9.1).

▶ **Saved Conversations:** You may view or delete the stored conversation session.

▶ **Logout (Sign Off/Disconnect/Sign Out):** This begins the Logout (Sign Off/Disconnect/Sign Out) process.

When cursor is located on the Contact (Buddy/Friend)

▶ **Chat (Send IM/Send Message)/View (Open):** This will display a screen where conversation with selected Contact (Buddy/Friend) can take place. and View (Open) shows conversation of the contact which conversation is already started.

▶ **Rename Contact:** Selected Contact name can be changed or renamed.

▶ **Block / Unblock Contact (Block / Unblock Buddy):** This allows or blocks conversation with the selected Contact (Buddy).

▶ **Subscribe To:** This sets the automatic update of presence information for a selected Contact.

▶ **Unsubscribe To:** This cancels the automatic update presence setting for a selected Contact.

▶ **Delete Contact (Delete Buddy):** This deletes the selected Contact (Buddy).

▶ **View Information:** This allows for viewing of the selected Contact (Friend) information.

▶ **Settings (Preferences):** Please refer to the Settings Menu on page.

▶ **Saved Conversations:** You may view or delete the stored conversation session.

▶ **Logout (Sign Off/Disconnect/Sign Out):** This begins the Logout (Sign Off /Disconnect/Sign Out) process.

Menu options available in the Conversation screen

▶ **Send:** Typed message can be sent.

▶ **Back To List (See Friend List):** This brings the screen back to the contact (buddy/friend) list.

▶ **End Conversation:** This ends the active conversation and clears the conversation buffer.

▶ **Block / Unblock Contact (Block / Unblock Buddy):** This allows or blocks conversation with the selected Contact (Buddy/Friend).

▶ **Save Conversation:** Stores currently active conversation.

▶ **View Information:** Selected Contact (Buddy/Friend) information can be viewed.

▶ **T9 Languages:** This selects the T9 predictive mode Language.

• Within the conversation screen, you can insert a template using the right soft key.

• In the conversation window, you can use a side key for scrolling conversation history and a menu navigation key for moving cursor in the saying editor just like in the text message.

Online Menu / Group Chat

When cursor is located on the Group List

▶ **View/Hide Groups:** You can choose to view or hide the Group Chat List.

▶ **Join New Group:** This allows you to join a new Group Chat. In order to join, Group ID is required.

▶ **Search Group:** You can join after searching the Group chat.

▶ **Make Group:** A new group chat can be created after typing in the group ID and the welcome note.

▶ **Settings:** Please refer to the Settings Menu on page.

▶ **Saved Conversations:** You may view or delete the stored conversation session.

▶ **Logout (Sign Off/Disconnect):** This begins the Logout (Sign Off / Disconnect) process.

Menu options available in the group chat screen
(Only if it's been created by yourself.)

▶ **Send:** This sends the typed message to all active members within the Group Chat.

▶ **Invite Others:** This allows you to invite another contact (buddy/friend) to the group chat. You can use the contact (buddy/friend) list within the menu or by inviting based on the search results.

▶ **Back To List:** This brings the screen back to the contact (buddy/friend) list.

▶ **Leave Group:** When leaving the active group chat session, the buffer is cleared.

▶ **Save Conversation:** Stored conversation can be viewed or deleted.

▶ **Delete Group:** This deletes the entire active group chat, only if it 's been created by yourself.

▶ **Show Members (People here/Now chatting):** This displays current members who have joined the active group chat session.

▶ **T9 Languages:** This selects the T9 predictive mode Language.

🔶 **Note** Maximum number of characters supported by an IM is 500 characters for receiving and 160 characters for sending.

The presence information might not update in real time so the "Refresh list" option can be used for most up to date status.

According to the IM Community, it can become different menu string or terminology and it can't see menu among menu items.

My MEdia

Favorites

Your phone may have some pre-installed bookmarks for sites not affiliated with LG. LG does not warrant or endorse these sites. If you choose to access them, you should take the same precautions, for security or content, as you would with any site. For further details, see page 61 (Menu 5.2).

Games & Apps

For further details, see page 56~57 *(*Menu 3.2).

Ringtones / Audio

The left soft key [**Options**] will bring up the following options.

▶ Shop Ringtone: This menu option connects to Cingular's ringtone download site.

▶ Send Via Text Message: Melody Sound can be sent via SMS.

▶ Send Via Multimedia Message: Downloaded Sound can be sent via MMS.

▶ Set As Ringtone: This sets the Ring Tone with currently selected Sound.

▶ Delete: This deletes currently selected Sound.

▶ Edit Title: This deletes the Title of currently selected Sound.

> 🛑 **Note** Sounds supplied as default can only be used under the Set As Ring Tone mode.

Graphics *Menu 7.4*

The left soft key [**Options**] will bring up the following options.

▶ Shop Graphics: This menu option connects to Cingular's graphic download site.

▶ Send Via Text Message: EMS Picture can be sent via SMS.

▶ Send Via Multimedia Message: Downloaded Picture can be sent via MMS.

▶ Set As Wallpaper: Currently selected Picture can be set as a Wallpaper.

▶ Delete: Currently selected Picture can be deleted.

▶ Edit Title: Title of currently selected Picture can be edited.

🔴 **Note** Pictures supplied as default can only be used under the Set As Wallpaper mode.

Photo Gallary *Menu 7.5*

All the still images taken in the Take Photo menu are stored in this menu. You can view, organise and send the pictures saved in your phone.

Select the picture you want press the left soft key [Options] to access the following submenus.

▶ **Open:** You can view one image at a time.

▶ **Delete:** Deletes the selected image.

▶ **Set As Wallpaper:** You can set the selected image as the LCD wallpaper.

▶ **Set As Photo ID:** You can add the selected image to a address book contact to use the Photo Caller ID feature.

▶ **Send Via Multimedia Message:** You can send the selected image via a multimedia message.

▶ **Edit:** (Shown in the normal view) After selecting the normal view of an image, you can edit it as follows. After editing, the changed image can be saved by pressing the left soft key [Save]. And the original image is retained.

   • Effect Filters: You can give various effects to the image. After selecting the desired effect from 12 effect filters using the left/right navigation key, press the left soft key [Save]. The changed image is stored.

   • Rotate: You can rotate the image 90, 180, or 270 degrees.

▶ **Rename:** You can change the name of the selected image.

▶ **Delete All:** Deletes all the images in your phone.

▶ **Information:** You can check the title, resolution, size, and date and time of the selected image.

Video Gallary   *Menu 7.6*

Select the desired video clip using left/right/up/down navigation keys, you can access the following submenu using the left soft key [Options].

▶ **Open:** Plays the selected video clip.

▶ **Delete:** Deletes the selected video clip.

▶ **Send Via Multimedia Message:** You can send the selected video clip via a multimedia message.

▶ **Rename:** You can change the title of the selected video clip.

▶ **Playback:** You can play video clip with below option

   • Once: play the selected video clip only one time

   • Repeat: play the selected video clip repeatedly

   • Continuous: play the all the video clip in your phone continuously

▶ **Delete All:** Deletes all the video clips in your phone.

▶ **Information:** You can check the title, size, playing time and date and time of the selected image.

Tools *Menu 7.7*

Camera / Video *(Menu 7.7.1)*

Take Photo *(Menu 7.7.1.1)*

Using the camera module built in your phone, you can take pictures of people or events while on the move. Additionally, you can send photos to other people in a picture message.

The right soft key [Options] will bring up the following options.

> **Note** Press the left soft key [Video]: Video application enables you to record a video clip.

▶ **Resolution:** Sets the image size to one of 640X480 (Hi), 320X240 (Med), 128X160 (Low). The selected image size displays on the capture screen.

▶ **Quality:** Determines the quality of an image.

▶ **White Balance:** This adjusts the light effect level and you can select from the following options: Auto / Daylight / Incandescent / Cloudy / Fluorescent.

▶ **Self Timer:** Determines the delay time.

▶ **Flash:** Determines the flash operation.

▶ **Reverse View:** Allows you to reverse the image.

▶ **Color Effect:** Allows you to apply special effects to the picture. Press the left or right navigation key to find the tone you want to use. Color, Sepia, Mono are available.

▶ **Fun Frames:** Allows you to use a fun frame from the list.

▶ **Multishot:** This feature enables the amount of continuous frames that can be taken at one time. The number of frames is determined by the image size setting.

▶ **Shutter Tones:** Allows you to select a sound when you press the shutter.
Sound 1 / Sound 2 / Sound 3 / Off

▶ **Default Settings:** This restores the original camera settings (Size, Brightness, Zoom, etc.).

Taking a single still shot (   )

After finishing camera option setting (if needed), focus on the subject to capture and press the Camera key or $\boxed{X}$ key. With a click, the image is captured and then automatically saved in the **Photo Gallery.**

Taking multiple shots in succession (   )

Select the **Multishot** mode. After finishing camera option setting, focus on the subject to capture and press the Camera key. With a click, the image is captured and then automatically saved in the **Photo Gallery.**

Record Video *(Menu 7.7.1.2)*

You can record the video up to 30 minutes. But it depends on the resolution, the available memory capacity, and the quantity of data to be compressed. Press **Record Video**. You can record a video clip in this menu by pressing the Camera key. Before taking a shot, press the right soft key [option] to set the following values. Select the desired value and press the OK key to confirm it.

⏺ **Note** Press the left soft key [Photo]: Camera application enables you to take a still picture.

▶ **Recording Mode:** Sets the recording mode to one of General, MMS Video.

▶ **Resolution:** Sets the image size to one of 176X144 (Hi), 128X96(Low). The selected image size displays on the capture screen.

▶ **Quality:** Determines the quality of a video cliip.

▶ **White Balance:** This adjusts the light effect level and you can select from the following options: Auto / Daylight / Incandescent / Cloudy / Fluorescent.

▶ **Flash:** Determines the flash operation.

▶ **Reverse View:** Allows you to reverse the video clip.

▶ **Color Effect:** Allows you to apply special effects to the video clip. Press the left or right navigation key to find the tone you want to use. Color, Sepia, Mono are available.

▶ **Default Settings:** This restores the original camera settings (Size, Brightness, Zoom, etc.).

Press the Camera key to start recording a video clip. REC time is updated on the LCD screen.

To stop recording, press the Camera key again. It is automatically saved in **Video Gallery.** And you can keep recording another video clip by pressing the Camera key.

Photo Gallery *(Menu 7.7.1.3)*

All the still images taken in the **Take Photo** menu are stored in this menu. You can view, organise and send the pictures saved in your phone.

Select the picture you want press the left soft key [Options] to access the following submenus.

▶ **Open:** You can view one image at a time.

▶ **Delete:** Deletes the selected image.

▶ **Set As Wallpaper:** You can set the selected image as the LCD wallpaper.

▶ **Set As Photo ID:** You can add the selected image to a address book contact to use the Photo Caller ID feature.

▶ **Send Via Multimedia Message:** You can send the selected image via a multimedia message.

▶ **Edit:** (Shown in the normal view) After selecting the normal view of an image, you can edit it as follows. After editing, the changed image can be saved by pressing the left soft key [Save]. And the original image is retained.

   • Effect Filters: You can give various effects to the image. After selecting the desired effect from 12 effect filters using the left/right navigation key, press the left soft key [Save]. The changed image is stored.

   • Rotate: You can rotate the image 90, 180, or 270 degrees.

▶ **Rename:** You can change the name of the selected image.

▶ **Delete All:** Deletes all the images in your phone.

▶ **Information:** You can check the title, resolution, size, and date and time of the selected image.

Video Gallery *(Menu 7.7.1.4)*

Select the desired video clip using left/right/up/down navigation keys, you can access the following submenu using the left soft key [Options].

▶ **Open:** Plays the selected video clip.

▶ **Delete:** Deletes the selected video clip.

▶ **Send Via Multimedia Message:** You can send the selected video clip via a multimedia message.

▶ **Rename:** You can change the title of the selected video clip.

▶ **Playback:** You can play video clip with below option

  • Once: play the selected video clip only one time

  • Repeat: play the selected video clip repeatedly

  • Continuous: play the all the video clip in your phone continuously

▶ **Delete All:** Deletes all the video clips in your phone.

▶ **Information:** You can check the title, size, playing time and date and time of the selected image.

Memory Status *(Menu 7.7.1.5)*

You can check the current memory status on the phone. Images and **Movie** share the memory.

Alarm Clock *(Menu 7.7.2)*

You can set up to 5 alarm clocks to go off at a specified time.

1. Select **On** and enter the alarm time you want.

2. Select the repeat period : **Once**, **Mon~Fri**, **Mon~Sat**, **Everyday**.

3. Select the alarm tone you want and press the left soft key [OK].

4. Edit the alarm name and press the left soft key [OK].

Calendar *(Menu 7.7.3)*

You can make up to maximum 20 notes.

When you enter this menu a calendar will be displayed. Top of the screen indicates sections for date. Square cursor is used to locate a particular day. The under bar on the calendar indicates a schedule or memo on that day. This function helps to remind you of the schedule and memo. The phone will sound an alarm tone if it has been set for a specific note.

For changing the day, month, and year.

Key	Description
up/down navigation key	Weekly
left/right navigation key	Daily
⌜1∞⌝ key/ ⌜3def⌝ key	Yearly
⌜*⌝ key/ ⌜#⌝ key	Monthly

🔶 **Note** Your phone should be switched on to use this function.

Visible menus on Scheduler

▶ **View Daily Schedules:** Shows the note for the chosen day. Use the up/down navigation keys to browse through the note lists. If you set alarm for the note, Alarm watch is displayed. At that time, if you press the left soft key [Select], you can see the note in detail. Press the left soft key [Options] to delete, edit the note you selected. With your Left or Right Navigation keys, you go to previous or next day.

▶ **Add New:** Input the subject, the schedule time, the repeat, the alarm by pressing allowed keys.

▶ **View All Schedules:** Shows the notes that are set for all days. Use up/down navigation keys to browse through the note lists. You can use the same menu as "**View Daily Schedules**" by select key pressing the right soft key [Options].

▶ **Delete Past:** You can delete the past schedule that has been already notified you.

▶ **Delete All:** You can delete for the all note(s).

▶ **Go To Date:** Typing a date, you can go to the date directly.

▶ **Set Alarm Tone:** You choose a scheduler alarm tone on the list showing.

Voice Recorder *(Menu 7.7.4)*

The voice memo feature you to record up to 10 voice messages and each memo is up to 20 Seconds.

Record *(Menu 7.7.4.1)*

1. You can record voice memo in Voice recorder menu and also holding down ⌐⊂⌐ in the standby mode.

2. Once recording is started, the message Recording and the remaining time is displayed.

3. If you want to finish recording, press the left soft key [Save].

4. Key in Voice memo title, press the left soft key [OK].

View list *(Menu 7.7.4.2)*

The phone shows voice memo list. You can access the following submenu using the left soft key [Options].

▶ **Play:** Allows you to play back all memos recorded, starting with the most recent memo. The screen displays the date and time when the memo was recorded.

▶ **Delete:** Allows you to delete a specific memo. All memos recorded are played back, starting with the most recent one.

▶ **Record New:** Allows you to record a memo.

▶ **Rename:** Allows you to rename a specific memo.

▶ **Send Via Multimedia Message:** Sends the selected voice memo by MMS.

▶ **Delete All:** Allows you to delete all memos.

Calculator *(Menu 7.7.5)*

Using this feature, you can use the phone as a calculator. The calculator provides the basic arithmetic functions: addition, subtraction, multiplication and division.

Using the Calculator

1. Enter the first number using the numeric keys.

2. Use the navigation keys to select a sign for calculation.

> ❗ **Note** To include a decimal point, press the ⌨ key.

3. To calculate the result, press the left soft key [**Result**]or ⊗ key.

Memo *(Menu 7.7.6)*

You can make up to maximum 10 memos.

1. Select a memo pad you would edit.

2. If being a (Empty), **Add new** by pressing the left soft key [Select].

3. Input the memo and then press the left soft key [OK].

World Time *(Menu 7.7.7)*

You can view clocks of the world's major cities.

1. Select the city belonged to the time zone by pressing the left/right navigation key.

2. You can set the current time to the city time you select by pressing the left soft key [Set].

Unit Converter *(Menu 7.7.8)*

This converts any measurement into a unit you want. There are 4 types that can be converted into units: **Length**, **Area**, **Weight**, and **Volume**.

1. You can select one of four unit types by pressing left soft key [**Unit**].

2. Select the standard value by using left/right navigation key.

3. Select the unit you want to convert by pressing up and down navigation.

4. You can check the converted value for the unit you want. Also, you can input a decimal number by pressing .

IrDA *(Menu 7.7.9)*
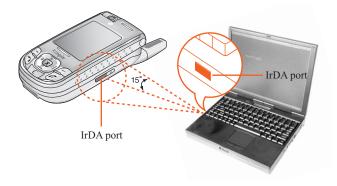
This feature allows you to send or receive data/fax through the infrared port. To use an infrared connection:

• Install the modem driver for receiving or sending the data/fax.

• Install the network dial-up software supplied by your service provider or fax application program for a fax call on your PC.

• Configure and activate an IrDA-compliant infrared port on your PC.

• Activate the infrared feature on the phone; the ▌▌ symbol appears on the right side at the bottom of the display.

• Dial the network service number given to you by the service provider.

If there is no communication between your phone and the IrDA-compliant device within 30 seconds after activation of the feature, it is automatically deactivated.

For further details, contact your service provider.

IrDA port

IrDA port

15°

PC Sync PC Sync is a program for data exchange between PC and the phone by a data cable. Therefore, if you want to use this function, you have to buy the accessory kit.

My Menu *(Menu 7.7.0)*

Allows you to add your own favorites to the list already provided. Once you create your own menu, you can access the desired function quickly in the idle screen by pressing the right soft key.

1. In the [empty] list, press the left soft key [Assign].

2. Select the item from the menu and save the desired menu item.

Address Book

You can store phone numbers and their corresponding names in the memory of your SIM card. In addition, you can store up to 255 numbers and names in the phone memory. The SIM card and phone memories, although physically separate, are used as if they were a single entity, called the Address Book.

Contact List   *Menu 8.1*

1. You can also scroll through the Address Book from the beginning, in idle mode with slide open, by pressing the down navigation key directly.

2. If you want to edit, delete, copy an entry, or to add the voice to one, select [**Options**].

3. Once you have found the required entry, press the ⟨ ⟩ to dial the number.

• **View Detail:** To view in detail the selected name.

• **Delete:** You can delete an entry.

• **Write Message:** You can write a short message and a multmedia message. For further details, see page 45~48.

• **Edit:** You can edit the name, mobile number, home number, office number, E-mail, group, piture by press the left soft key [Select].

• **Copy To Phone:** You can copy an entry from SIM to phone.

• **Copy To SIM:** You can copy an entry from Phone to SIM.

• **Assign Speed Dial:** You can call directly to set speed dials in this opton. For futher details, see page 87.

• **Main Number:** You can select the main number out of your mobile, home or office numbers. Choose the one that is most often used. The main number will be displayed first, if you set this.

• **View Caller Groups:** For futher details, see page 88.

New Contact   *Menu 8.2*

You can add a address book entry by using this function. Phone memory capacity is 250 entries. SIM card memory capacity depends on the cellular service provider. You can also save 40 characters of name in the phone memory, and save characters in the SIM card. The number of characters is dependent on the SIM.

1. Scroll to highlight **New Contact**, and press the left soft key [**Select**].

2. You can add new address book entries to SIM memory or the address book memory. To select the memory, go to Set memory (Menu 8.7.1). (Refer to page 89.)

• Adding new entries into SIM memory

You can enter a name and number, and select the required group. (Depends on the SIM)

• Adding new entries into phone memory

You can enter a name, numbers, E-mail address and memo, and select the required group.

Speed Dial List   *Menu 8.3*

You can assign any of the keys, $\boxed{2^{abc}}$ to $\boxed{9^{wxyz}}$ with a name list entry. You can call directly by pressing this key for 2-3 seconds.

1. Scroll to **Speed Dials**, then press the left soft key [**Select**].

2. If you want to add a number to speed dial, select <**Empty**>. Then, you can search the name from the Address Book.

3. Select the name from the speed dial. You can change and delete the name. In addition, you can call by this number, write text message, and multimedia message.

Caller Groups

There are 6 predefined groups as well as one additional group labeled Others where you can create your own lists.

1. You can set the phone to ring in a specific way and display a preselected graphic icon when a particular person calls you.

2. Scroll to **Caller Groups** then press the left soft key [**Select**] to enter this menu.

3. Every Group list will be displayed: **Family**, **VIP**, **Friends**, **Colleague**, **Group 1**, **Group 2**, **Others**.

4. Select the Group name that you want to manage by pressing the left soft key [**Options**].

5. You will see the following submenus under the predefined groups except for the **Others** group.

• **Member List:** Allows you to see the member list in the group.

• **Group Ring Tone:** Allows you to select the ring tone to be used when you receive a voice phone call from a person in the group.

• **Group Icon:** Allows you to select the graphic icon to be displayed when you receive a call from a person in the group.

• **Add Member:** Allows you to add the member to the group.

• **Remove Member:** Allows you to delete the member in the group.

• **Rename:** Allows you to assign a name to the group.

• **Remove All:** Allows you to delete all the member in the group.

Copy All *Menu 8.5*

You can copy or move entries from the SIM card memory to the phone memory and vice versa.

SIM To Phone *(Menu 8.5.1)*

You can copy the entry from the SIM card to phone memory.

Phone To SIM *(Menu 8.5.2)*

You can copy the entry from the phone memory to the SIM card.

The following options are available:

▶ **Keep Original:** When copying, Original Dial Number is kept.

▶ **Delete Original:** When copying, Original Dial Number will be erased.

Delete All *Menu 8.6*

You can delete all entries in the **SIM** and **Phone.** This function requires the security code except for Voice.

Press the ⌣ key to return to the standby mode.

Settings *Menu 8.7*

Set Memory *(Menu 8.7.1)*

Scroll to highlight the Set Memory option, then press the left soft key [**Select**].

▶ If you select **Variable** when adding entry, the phone will ask where to store.

▶ If you select **SIM** or **Phone**, the phone will store an entry to the SIM or the phone.

View Options *(Menu 8.7.2)*

Names Only: The phone will search an entry by Name, display up to 6 picture list.

Name & Number: The phone will search an entry by the Name and the Number, display up to 4 picture list Name and Number, without showing picture.

With Pictures: The phone will search an entry by Name or Number, display up to 4 picture list, with showing picture.

Information   *Menu 8.8*

* **Service Dial Number** *(Menu 8.8.1)*

You can view the list of Service Dialing Numbers (SDN) assigned by your network provider (If supported by the SIM card). Such numbers include the emergency, directory assistance and voice mail numbers.

1. Select the Service dial number option.
2. The names of the available services will be shown.
3. Use the up/down navigation keys to select a service. Press the ⟍ key.

Memory Status *(Menu 8.8.2)*

You can check how many names and numbers are stored in the Address Book (SIM card and phone memories).

* **Own Number** *(Menu 8.8.3)*

Allows you to display your phone number in the SIM card.

Settings

Sounds *Menu 9.1*

There can be 5 sound modes. Normal, Manner, Silent, Ear Mic and Car Kit. Normal, Manner, Silent modes can be changed on Volume menu. In addition, long last ✳ key on idle mode can swap Normal and Manner mode. Ear Mic and Car Kit is available when instruments are attached.

Shop Ringtones *(Menu 9.1.1)*

Connects to Cingular Ringtone Shops. See page 73 for further details.

Ringtones *(Menu 9.1.2)*

Shows and plays ringtones. A7110 supplies 10 default ringtones. There can be downloaded ringtones from Ringtone shops.

Volume *(Menu 9.1.3)*

Can control Ringtone, Key Tone, In call Volume, Ear Mic and Car Kit attached volume. The others (slide tone volume, message tone volume, etc...) depend on Ringtone volume.

Ring Alert Type *(Menu 9.1.4)*

Supports 3 ring alert type. Ring, Ring & Vibration and Ring After Vibration. It is available on Ringtone volume level 1~5.

Message Alert Tones *(Menu 9.1.5)*

You can select 4 message alert tones.

Key Tones *(Menu 9.1.6)*

You can select 5 key tones including Voice Keytone.

Slide Tones *(Menu 9.1.7)*

You can select 3 slide tones. It will be played on slide on and off.

Voice Recorder *(Menu 9.1.8)*

See page 82 for further details.

Display *Menu 9.2*

Wallpaper *(Menu 9.2.1)*

You can select the background pictures in standby mode. There are 2 folders that include graphics and pictures originated from built-in camera or web sites. No Wallpaper make the background be white.

Backlight Timeout *(Menu 9.2.2)*

You can set the light-up duration of the internal display. There are 3 lightup durations.

Languages *(Menu 9.2.3)*

You can change the language for the display texts in your phone. This change will also affect the Language Input mode. A7110 supports English, French, Spanish.

Menu Style *(Menu 9.2.4)*

You can change the top menu styles, iconic grid and list style.

Banner *(Menu 9.2.5)*

If you select **On**, you can edit the text which is displayed in standby mode.

Color Scheme *(Menu 9.2.6)*

You can choose 4 kinds of color schemes, Default, Pictograph, Metal and Midnight.

Information Window *(Menu 9.2.7)*

You can preview the current state of the selected menu before open the menu. The state is shown at bottom of the display.

Date & Time *Menu 9.3*

You can set functions relating to the date and time.

Set Date *(Menu 9.3.1)*

You can enter the current date.

Date Format *(Menu 9.3.2)*

You can set the Date format such as YYYY/MM/DD, DD/MM/YYYY, MM/DD/YYYY. (D: Day / M: Month / Y: Year)

Set Time *(Menu 9.3.3)*

You can enter the current time.

Time Format *(Menu 9.3.4)*

Your can set the time format between 24-hour and 12-hour.

▶ The Wake up alarm is active even if the phone is off.

▶ The Wake up alarm lasts 1 minute.

Auto Update *(Menu 9.3.5)*

Set on, Date and time are set up automatically.

Call
Menu 9.4

To change the settings for call diverting:

* Call Forwarding *(Menu 9.4.1)*

When this network service is activated, you can direct your incoming calls to another number, for example, to your voice mailbox number. For details, contact your service provider. Select one of the divert options, for example, select **If busy** to divert voice calls when your number is busy or when you reject incoming calls.

The following options are available:

▶ **All Voice Calls:** Diverts voice calls unconditionally.

▶ **If Busy:** Diverts voice calls when the phone is in use.

▶ **If No Reply:** Diverts voice calls which you do not answer.

▶ **If Out Of Reach:** Diverts voice calls when the phone is switched off or out of coverage.

▶ **All Data Calls:** Diverts to a number with a PC connection unconditionally.

▶ **All Fax Calls:** Diverts to a number with a fax connection unconditionally.

  • **Activate:** Activates the corresponding service.

   - **To Voice Mail:** Forwards to voice mail center. This function does not include All Data Calls and All Fax Calls menus.

   - **To Other Number:** Inputs the number for diverting.

   - **Favorite Number:** You can check recent five diverted numbers.

  • **Cancel:** Cancels the corresponding service.

  • **View Status:** Checks the status of the service.

▶ **Cancel All:** Cancels all call divert service.

Answer Mode *(Menu 9.4.2)*

Allows you to determine when to answer the phone.

▶ **Slide Open:** When the phone rings, you can answer a call simply by sliding down the keypad.

▶ **Any Key:** You can answer an incoming call by pressing any key, except the ☌ key.

▶ **Send Key Only:** You can answer an incoming call by only pressing the ☍ key.

* Send My Number *(Menu 9.4.3)*

This network service allows you to set your phone number to be displayed (**On**) or hidden (**Off**) from the person to whom you are calling. Select **Set By Network** to reset the phone to the setting that you have agreed upon with your service provider.

* Call Waiting *(Menu 9.4.4)*

The network will notify you of a new incoming call while you have a call in progress. Select **Activate** to request the network to activate call waiting, **Cancel** to request the network to deactivate call waiting, or **View Status**, to check if the function is active or not.

Minute Minder *(Menu 9.4.5)*

This option allows you to specify whether the phone must beep every minute during an outgoing call to keep you informed of the length of the call.

Automatic Redial *(Menu 9.4.6)*

Select **On**, and your phone will make a maximum of three attempts to connect the call after an unsuccessful call attempt.

Send DTMF *(Menu 9.4.7)*

You can send the DTMF (dual tone multi-frequency) tones of the number on the display during a call.

This option is helpful for entering a password or account number when you call an automated system, like a banking service.

Security   *Menu 9.5*

Various codes and passwords are used to protect the features of your phone. They are described in the following sections.

PIN Code Request *(Menu 9.5.1)*

When the PIN code request feature is enabled, you must enter your PIN each time you switch the phone on. Consequently, any person who does not have your PIN cannot use your phone without your approval.

> **Note** Before disabling the PIN code request feature, you must enter your PIN

The following options are available:

▶ **Enable:** You must enter the PIN each time the phone is switched on.

▶ **Disable:** The phone connects directly to the network when you switch it on.

Phone Lock *(Menu 9.5.2)*

You can use security code to avoid unauthorized use of the phone. Whenever you switch on the phone, the phone will request security code if you set phone lock to Always On. If you set phone lock to When SIM Changed, your phone will request security code only when you change your SIM card. If you want to lock your phone after power on, set Phone Lock to Immediatley.

Auto Key Lock *(Menu 9.5.3)*

When you enable Automatic key lock, keypad will be lock automatically on an idle screen after seleted seconds without any key requesting. if you set to Off, keypad will not be locked automatically.

> ❶ **Note** If you want to unlock your phone keypad, press the left soft key [unlock] and then press the right soft key. But if you enabled Automatic key lock before, your phone keypad will be unlock and then after seleted seconds the keypad will be lock up again automatically.

* Call Barring Service *(Menu 9.5.4)*

Call barring allows you to restrict from making and receiving calls with your phone. For this function, you need the barring password, which you can obtain from your service provider.

The following options are available:

▶ **All Outgoing Calls:** Calls cannot be made.

▶ **Outgoing International:** International calls cannot be made.

▶ **O/G (**Outgoing) **International Except Home Country:** When abroad, calls can be made only to numbers within the current country and to your home country, which is where your home network provider is located.

▶ **All Incoming Calls:** Calls cannot be received.

▶ **Incoming When Abroad:** Calls cannot be received when you are using your phone outside your home service area.

▶ **Cancel All Barrings:** All call barring settings are deactivated; calls can be made and received normally.

▶ **Change Password:** You can set and change the call barring password obtained from your service provider using this option. You must enter the current password before you can specify a new one.Once you have entered a new password, you are asked to confirm it by entering it again.

🛈 **Note** To use Call Barring service, you must input the network password. When calls are barred, calls may be possible to certain emergency numbers in some networks.

Fixed Dial Number *(Menu 9.5.5)*

Allows you to restrict your outgoing calls to selected phone numbers, if this function is supported by your SIM card. The PIN2 code is required.

The following options are available:

▶ **Enable:** You can only call phone numbers stored in the Address Book. You must enter your PIN2.

▶ **Disable:** You can call any number.

▶ **Number List:** You can view the number list saved as fixed dial number.

🛈 **Note** Not all SIM cards have a PIN2. If your SIM card does not, this menu option is not displayed.

Change Codes *(Menu 9.5.6)*

The Change codes feature allows you to change your current password to a new one. You must enter the current password before you can specify a new one.

You can change the access codes: **Security Code**, **PIN1 Code**, **PIN2 Code**

⚠️ **Note PIN:** Personal Identification Number.

Connection   *Menu 9.6*

Depending on ENS (Enhanced Network Selection) function and "PLMN Mode" in SIM, Network Selection menu appears or disappears.

World Phone *(Menu 9.6.1)*

When the America (850/1900) option is selected the device can be used in the US, and when the Europe (1800) option is chosen the device can be used in European countries.
This phone does not automatically search and set the GSM frequency. Instead the user must manually set the frequency band based on his/her location. The default setting is "America (850/1900)" so in order to switch to the European frequency, simply select the "Europe (1800)"option from the World Phone Setting menu. After the selection, turn the phone off and on again to begin using the new frequency setting. When traveling to different parts of the world, you must always set the World Phone Setting to the correct frequency band.

GPRS Attach *(Menu 9.6.2)*

If you select **Power On** and you are in a network that supports packet data, the phone registers to the GPRS network and sending short messages will be done via GPRS. Also, starting an active packet data connection, for example, to send and receive e-mail, is quicker. If you select **When Needed**, the phone will use a packet data connection only if you start an application or action that needs it. The GPRS connection is closed after it is not used by any application.

> **Note** If there is no GPRS coverage and you have chosen **Power on**, the phone will periodically try to establish a packet data connection.

Reset Settings   *Menu 9.7*

You can easily reset your phone to its default configuration. To do so, proceed, as follows.

1. Select the Reset Settings menu option.

2. Enter the 4-digit phone password.

> **Note** The password is preset to **0000**.

Q&A

Please check to see if any problems you have encountered with the phone are described in this section before taking the phone in for a service or calling a service engineer.

Q How do I view the list of outgoing calls, incoming calls and missed calls?

A Press the ⌇ key.

Q How do I clear all call history?

A Press the left soft key [Menu] and then the 1 4 4 key.

Q How do I view all numbers stored in memory?

A Press the down navigation key.

Q Why is the connection inconsistent or not audible in certain areas?

A When frequency environment is unstable in a certain area, connection may be inconsistent and not audible. Relocate to another area and try again.

Q Why is the connection not consistent abruptly disconnects even when established?

A When frequency is unstable or weak or if there are too many users, connection may be cut off even after it was established. Please try again later or attempt after relocating to other areas.

Q&A

Q Why does the LCD not turn on?

A Remove the battery and turn on the power after placing it back on. If there is no change, fully charge the battery and try again.

Q Why is there an echo when a connection is made with certain telephones in a certain area?

A This is called the 'Echo Phenomenon', where it occurs if connection volume is too high or caused by special properties (semi electronic telephone exchange) of the equipment on the other end.

Q Why does the phone heat up?

A The phone may get hot when there is a very long call duration or when games are played or even when surfing the Internet for a long time. This has no effect upon the life of the product or performance.

Q Why is there no ring tone, but only a blinking LCD screen?

A Phone may be set to 'Vibration All' or in 'Silent All' mode. In the Sound menu, please select Volume → Ringtone → Volume 1 ~ Volume 5, or Vol5&Vib.

Q Why does the battery life get shorter in standby mode?

A The battery is worn out. As time passes, the battery life gradually becomes shorter. If the battery lasts about half the amount of time as when first purchased, it's time to purchase a new battery.

Q Why does the battery run out so quickly during normal use?

A It is due to the user environment or a large number of calls or weak signal.

Q Why is no number dialed when you recall a Address Book entry?

A Check that the number has been stored correctly by using the Address book Search feature. Re-store them, if necessary.

Q Why can't my correspondent reach me?

A Is you phone switched on (⌀ pressed for more than three seconds)? Are you accessing the right cellular network? Or, you may have set an incoming call barring option.

Q I cannot find the lock, PIN, or PUK code. What is my password?

A The default lock code is '0000'. If you forget or lose the lock code, contact your phone dealer. If you forget or lose a PIN or PUK code, or if you have not received such a code, contact your network service provider.

Accessories

There are a variety of accessories available for your mobile phone. You can select these options according to your personal communication requirements. Consult your local dealer for availability.

Travel Adapter

This adapter allows you to charge the battery. It supports standard U.S. 120 Volt 60Hz outlets.
It takes 5 hours to charge a completely discharged battery.

Battery

Standard battery is available.

Vehicle Power Adapter

You can operate the phone and trickle charge the phone battery from your vehicle by using the vehicle power adapter.
It takes 5 hours to charge a completely discharged battery.

Headset

Connects to your phone, allowing hands-free operation. Includes earpiece, microphone, and integrated call answer/termination button.

Data Cable Kit

Connects your phone to a PC.

Safety Guidelines

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 Signal

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

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

ANSI C95.1 (1992) *

NCRP Report 86 (1986)

ICNIRP (1996)

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

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

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:

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

Driving

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

▶ Give full attention to driving — driving safely is your first responsibility;

▶ Use hands-free operation, if available;

▶ Pull off the road and park before making or answering a call if driving conditions so require.

Electronic Devices

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

Pacemakers

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

Persons with pacemakers:

▶ Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON;

▶ Should not carry the phone in a breast pocket.

▶ Should use the ear opposite the pacemaker to minimize the potential for interference.

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

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider.

Other Medical Devices

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

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

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.

You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities

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

Aircraft

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

Blasting Areas

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

Potentially Explosive Atmosphere

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 standby 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 the FDA's role concerning the safety of wireless phones?

Under the law, the 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, the 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, the 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.

The 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

• Occupational Safety and Health Administration

• National Telecommunications and Information Administration

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

The 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. The FCC relies on the FDA and other health agencies for safety questions about wireless phones.

The 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 handheld 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 FCC safety guidelines that were developed with the advice of the 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 the FDA doing to find out more about the possible health effects of wireless phone RF?

The 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).

The 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.

The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with 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 radio frequency energy (RF) exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/ rfsafety) gives

directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

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

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

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

If there is a risk from these products — and at this point we do not know that there is — it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.
If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance.

For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

11. What about wireless phone interference with medical equipment?

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, the 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 the 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. The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a 'compatible' phone and a 'compatible' hearing aid at the same time. This standard was approved by the IEEE in 2000. The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

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

Consumer Information on SAR
(Specific Absorption Rate)

This Model Phone Meets the Government's Requirements for Exposure to Radio Waves.

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

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

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

The highest SAR value for this model phone when tested for use at the ear is 0.714 W/kg and when worn on the body, as described in this user's manual, is 0.482 W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements.) While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID BEJA7110.

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

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

Glossary

To help you understand the main technical terms and abbreviations used in this booklet and take full advantage of the feature on your mobile phone, here are a few definitions.

Call Barring

Ability to restrict outgoing and incoming calls.

Call Divert

Ability to reroute calls to another number.

Call Waiting

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

GPRS (General Packet Radio Service)

GPRS guaranties continuous connection to the Internet for mobile phone and computer users. It is based on the Global System for Mobile Communication (GSM) circuit-switched cellular phone connections and the Short Message Service (SMS).

GSM (Global System for Mobile Communication)

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

Java

Programming language generating applications that can run on all hardware platforms, whether small, medium or large, without modification. It has been promoted for and geared heavily to the Web, both for public Web sites and Intranets. When a Java program runs from a Web page, it is called a Java applet. When it is run on a mobile phone or pager, it is called a MIDlet.

Line Identification Services (Caller ID)

Service allowing subscribers to view or block the telephone numbers of callers.

Conference Calls

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

Phone Password

Security code used to unlock the phone when you have selected the option to lock it automatically each time it switches on.

Roaming

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

SDN (Service Dial Number)

Telephone numbers supplied by your network provider and giving access to special services, such as voice mail, directory inquiries, customer support and emergency services.

SIM (Subscriber Identification Module)

Card containing a chip with all the information required to operate the phone (network and memory information, as well as the subscriber's personal data). The SIM card fits into a small slot on the back of the phone and is protected by the battery.

SMS (Short Message Service)

Network service sending and receiving messages to and from another subscriber without having to speak to the correspondent. The message created or received (up to 160 characters long) can be displayed, received, edited or sent.

Patent Information

This product was manufactured under one or more of the following U.S. patents: 5276765 5749067 6061647

DATE: 2004.07.30 (FC)

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Memo

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