



**LG**

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User Guide

# LG 450

MFL68625001 (1.0)



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# LG 450 User Guide

- Screen displays and illustrations may differ from those you see on the actual phone.
- Some of the contents of this guide may not apply to your phone, depending on the software and your service provider. All information in this document is subject to change without notice.
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# Your Phone

## Phone overview

### Main LCD

Displays phone status icons, menu items, web items, web information, pictures and more, in full color.

### Camera Key

Lets you activate the Camera and take pictures.

### Message Key

Allows you to create a new message immediately.

### Navigation Keys

Home screen functions:

-  MetroWEB
-  Alarm Clock

### Send Key

Press this key in standby mode to quickly access the most recent missed, dialed, and received calls. Also dials a call when you enter a number.



### Earpiece

Lets you hear the caller during a call.

### Left Soft Key/Right Soft Key

Each of these keys perform the functions indicated by the text on the display immediately above them.

### Clear/Back Key

Allows you to return to the previous screen. Press and hold to activate the Voice Command function.

### TTS Mode Key

Lets you turn the Text-To-Speech mode on/off.

### OK Key

Select options and menus.

### End/Power Key

Allows you to power the phone on or off, end calls, or return to standby mode.

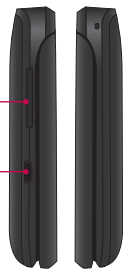
## Your Phone

### Volume Keys

Allows you to control the Master Volume while in standby mode and the earpiece volume during a call.

### Charger/USB Port

Allows you to connect a charger or other supported accessories.



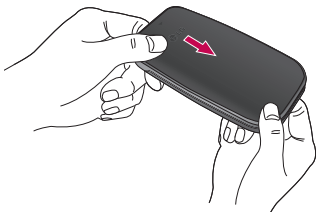


# Getting Started

## Installing the SIM card and battery

### 1 Remove the back cover

Place your thumb at the top part of the back cover and slide it downwards to remove it.



### 2 Remove the battery

Hold the top edge of the phone and use the fingernail cutout near the bottom of the battery to lift the battery from the phone.



**Warning!** Do not remove the battery when the phone is turned on; this can damage the phone.

### 3 Install the SIM card

Slide the SIM card into the SIM card slot (as shown below). Make sure that the gold contact area on the card is facing downwards. To remove the SIM card, slide it gently in the opposite direction.



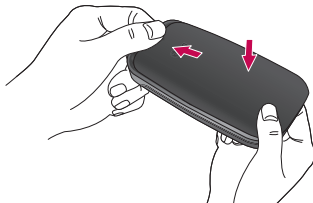
### 4 Install the battery

Insert the top of the battery first into the top edge of the battery compartment. Ensure that the battery contacts align with the terminals on the phone. Press the bottom of the battery down until it snaps into place.



### 5 Install the back cover

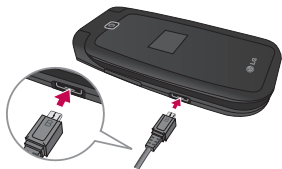
Align the back cover on the battery compartment and slide it upwards until it locks into place.



## Charging your phone

Locate the Charger/USB Port on the left side of your phone. Insert the charger connector to the phone (the 'B' side of the connector has to be facing up when connecting to the phone) and then plug the other end into the wall socket. Your phone will need to be charged until the Full Battery message appears on the screen.



**Important!** You must insert the battery before charging.






**Warning!** Use of unauthorized accessories could damage your phone and void your warranty.










## On-Screen Icons









The table below describes various display indicators or icons that appear on the phone's display screen.

ICON/ INDICATOR	DESCRIPTION
	Network signal strength (number of bars will vary)
	No network signal

ICON/ INDICATOR	DESCRIPTION
	Low Battery
	New text message
	New email

## Getting Started

ICON/ INDICATOR	DESCRIPTION
	An alarm is set
	Ring profile in use
	Silent All profile in use
	EDGE network available
	Bluetooth is active
	3G network available
	The browser is active
	Vibrating Mode On
	Speakerphone





ICON/ INDICATOR	DESCRIPTION
	Call in Progress
	Voicemail
	Battery Full
	Battery Charging
	Flight Mode On
	Camera in use
	Camcorder in use
	Camcorder timer

# General Functions



## Before you begin

Remember that you can select the menu icons from the Menu screen using the number keys if you set the Menu Styles option as **List**. If you set the Menu Styles option as **Icon**, you can only use the **Navigation Keys** to select the menu icons.



## 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 **Clear/Back Key**  to erase one digit at a time.
- 3 Press and hold the **Clear/Back Key**  to erase the entire number.
- 4 Press the **Send Key**  to call the number.
- 5 To end the call, press the **End/Power Key** .

## Making a Call with the Send Key

- 1 Press the **Send Key**  to display the most recent missed, dialed and received calls will be displayed.
- 2 Highlight the desired number by using the **Navigation Keys**.
- 3 Press the **Send Key** .

## Making International Calls

- 1 Press and hold the  key and the international access character '+' will appear.
- 2 Enter the country code, area code, and the phone number.
- 3 Press the **Send Key**  to call the number.


## Ending a Call


To end a call, press the **End/Power Key** .

# General Functions

## Making a Call from the Contacts







You can store frequently called names and phone numbers in the SIM card as well as in your Contacts List.

You can dial a number by simply highlighting a name in the Contacts List and pressing the **Send Key** .

- 1 To access Contact List, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and **1 call** **Contact List** .
- 2 Highlight the Contact and press the **Send Key** .

## Answering a Call

When you receive a call, the phone displays a notification on the screen and rings and/or vibrates. If the caller can be identified, the caller's phone number (or name, if stored in your Contacts) is displayed.

- 1 Press the **Send Key**  or the **Left Soft Key**  **Accept** to answer an incoming call.  
If the **Answer Mode** has been set as **Any Key** ( **Menu** > **Settings**  > **4 call** **Call** > **4 call** **Answer Mode**), any key press will answer a call, except for the **End/Power Key** , **Volume Keys**, or the **Right Soft Key** .
- 2 End the call by pressing the **End/Power Key** .

**NOTE:** You can answer a call while using other functions or features.

## Adjusting the Volume

Use the **Volume Keys** during a call to adjust the earpiece volume.

While in standby mode, you can adjust the Master Volume using the **Volume Keys**.

## Vibrating Mode (Quick)

Vibrating Mode can be activated by pressing and holding down the  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 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 Contacts, writing a message, or scheduling events in the calendar all require text to be entered.


## Changing the Text Input Mode

Change the text input mode by pressing  when in a text entry field.

You can check the current text input mode in the upper right corner of the screen.

The following text input modes are available on the phone.



### 123 Mode (Numbers Mode)

Type numbers using one keystroke per number. To change to 123 mode in a text entry field, press the  key until 123 mode is displayed in the upper right corner.

### Using the 123 (Numbers) Mode

The 123 Mode enables you to enter numbers in a text message (a telephone number, for example) more quickly. Press the keys corresponding to the required digits before manually switching back to the appropriate text entry mode.

### 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 highlight the desired symbol and press the **OK Key** .




# General Functions

## ABC Mode

This mode allows you to enter letters by pressing the key labeled with the required letter.

## Using the ABC Mode

Use the alphanumeric keypad to enter your text.

- 1 Press the key labeled with the required letter.
- 2 To insert a space, press the  key once. To delete letters, press the **Clear/Back Key** . Press and hold down the **Clear/Back Key**  to erase all of the entered text.

**NOTE:** Refer to the table below for more information on the characters available using the keys.


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



Key	Characters in the Order Displayed	
	Upper Case	Lower Case
0	Space Key, 0 (Long press)	Space Key, 0 (Long press)



# In-Call Menu

## During a Call

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**.

## Making a Second Call

You can select a number you wish to dial from the Contacts to make a second call.


- 1 Press the **Left Soft Key**  **Options**, then select **Contacts**.
- 2 Highlight the contact, then press the **Send Key**  to make a second call.

## Swapping Between Two Calls

Once the second call has been dialed (or answered), you can switch between the calls by using one of the following three methods:


- Press the **Send Key** .
- Press the **Left Soft Key**  **Options** and then select **Swap Calls**.
- Press the up or down **Navigation Keys**.

## Answering an Incoming Call



To answer an incoming call when the phone is ringing, simply press the **Send Key** . The phone 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.

If Call Waiting is turned on, you can put the first call on hold and answer the second call by pressing the **Send Key** .


## Rejecting an Incoming Call

You can reject an incoming call without answering by simply pressing the **End/Power Key** .

### Muting the Microphone



You can mute the microphone during a call by pressing the **Right Soft Key**  **Mute**. The phone can be unmuted by pressing the **Right Soft Key**  **Unmute**. When the phone is muted, the caller cannot hear you, but you can still hear the caller.

## Using the Speakerphone

You can use the integrated Speakerphone during a call by pressing the **OK Key**  **Spk. On**. The loudspeaker is automatically deactivated when you end the call.




**Warning!** Due to increased volume levels, do not place the phone near your ear while the speakerphone is enabled.

## Recent Calls

This menu allows you to see the list of recent calls. To access Recent Calls, from the standby screen, press the **Left Soft Key**  **Menu** and select **Recent Calls** .

## All Calls

This menu allows you to view the list of all calls.

To access All Calls, from the standby screen, press the **Left Soft Key**  **Menu**, **Recent Calls**  and  **All Calls**.


## Missed Calls

This menu allows you to view the list of missed calls.

To access Missed Calls, from the standby screen, press the **Left Soft Key**  **Menu**, **Recent Calls**  and  **Missed Calls**.

## Dialed Calls

This menu allows you to view the list of outgoing calls.

To access Dialed Calls, from the standby screen, press the **Left Soft Key**  **Menu**, **Recent Calls**  and  **Dialed Calls**.

## Received Calls

This menu allows you to view the list of incoming calls.

To access Received Calls, from the standby screen, press the **Left Soft Key**  **Menu**, **Recent Calls**  and  **Received Calls**.

# Contacts




## Contact List

This menu allows you to save and manage contact address information. The Contact List allows you to add a new address or search saved contact addresses by name.

To access Contact List, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **Contact List.**




## New Contact

This menu allows you to add a new contact to the Contact List. You can enter contact address information including name, phone numbers, email addresses, group information items, memos, ring tones, and a contact Picture ID.

To access New Contact, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **New Contact.**

## Groups

This menu allows you to manage group information. You can also configure a ring tone for a group so that the group ring tone sounds when a call from a specific contact address within that group is received and there is no ring tone configured for the specific contact address.

To access Groups, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **Groups.**

## Speed Dial

This menu allows you to assign a frequently-called contact to the Speed Dial List. You can select a number from 2 to 9 as a speed dial.

To access Speed Dial List, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **Speed Dial.**




### SIM Management

This menu allows you to copy information from your SIM card to your phone and vice versa. If a name is duplicated during the copying operation, the information is also duplicated. You can also delete information from the SIM card.

To access SIM Management, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **SIM Management**.




### Own Number

This displays your personal phone number.

To access Own Number, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **Own Number**.

### My Business Card




This displays your business card stored in the phone. You can also edit it.

To access My Business Card, from the standby screen, press the **Left Soft Key**  **Menu, Contacts**  and  **My Business Card**.

# Messages

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

## Create Message


- 1 From the standby screen, press the **Left Soft Key**  **Menu**.
- 2 Select **Messages** .
- 3 Press  **Create Message**.

**OR**

You can simply press the **Message Key**  from the standby screen.

**NOTE:** If you insert a picture, audio, or video file while writing a multimedia message, the file loading time will take about 5 seconds. You will not be able to activate any key during the file loading time. When the file loading is complete, you will be able to continue writing your multimedia message.

## Selecting a recipient

Enter the recipient(s). For more options, press the **Left Soft Key**  **Options**. In this menu, you can choose from the following options:

- **Enter Number:** Allows you to enter the phone number using the keypad.
- **Enter Email:** Allows you to enter an email address instead of a phone number.
- **Insert Symbol:** Allows you to enter symbols.
- **Caller Groups:** Choose a Contact from Caller Groups.
- **Recent Messages:** Choose a Contact from Recent Messages.
- **Recent Calls:** Choose a Contact from Recent Calls.
- **Delivery Options:** Allows you to set the options for Delivery report, Add Cc, and Add Bcc.
- **Save to Drafts:** Saves the selected message to Drafts.

# Messages

- **Text Entry Mode:** Allows you to change the text entry mode.
- **Text Entry Settings:** Allows you to set the options for Text Entry Language, T9 Word Candidate List, T9 Next Word Prediction, and T9 Dictionary.
- **Cancel Message:** Allows you to cancel the message.


## Editing a message

The following options are available when editing a message.

### Using Insert

While entering text, press the **Right Soft Key**  **Insert**. The following options are available.




**Symbol:** You can insert various symbols into your message. Pressing the **Left Soft Key**  and **Right Soft Key**  scrolls through the pages.

**Picture:** You can select a picture to insert by using the **Navigation Keys**. You can preview the selected picture by pressing the **Right Soft Key**  **View**.



**Audio:** You can insert an audio file from your saved audio files.

**Video:** You can insert a video clip from your saved video clips.

**Take New Picture:** You can take and insert a picture in your message.

**Record New Audio:** You can record a new audio clip by pressing the **OK Key**  **Record**. Press the **Left Soft Key**  **Options** before you begin recording to set the options (below). After recording a new audio clip, you can delete it by pressing the **Left Soft Key**  **Discard**.

• **Quality:** Set the audio's quality to **Fine**, **Normal**, or **Economy**.







**Record New Video:** You can record a new video by pressing the **OK Key**  **Rec**. When finished recording, press the **OK Key**  **Insert**.

**Slide:** Allows you to insert another slide before or after the current slide.

### Template

• **Text:** Allows you to easily insert frequently used sentences in the text message.



- **Multimedia:** Preset multimedia templates can be created (  **Menu** > **Messages**  >  **Message Settings** >  **Multimedia Message** >  **Multimedia Templates** >  **New**).
  - **Signature:** Allows you to insert your own created signature.
- More:** Allows you to insert Subject, vCard, vCalendar, vNote, vTask or Contact.


**NOTE:** vCard, vCalendar, vNote and vTask are created by the Contacts, Calendar, Notepad, and Tasks functions, respectively.

## Using Options


While entering text, press the **Left Soft Key**  **Options**.

- **Add Recipient:** Allows you to add the recipient.
- **Text Entry Mode:** Sets the text input mode. For more details, refer to Entering Text (page 13).
- **Text Entry Settings**
  - **Text Entry Language:** Allows you to set the text entry language to English or Spanish.
  - **T9 Word Candidate List:** Displays the word candidates as you type.
  - **T9 Next Word Prediction:** Allows the phone to predict the next word when typing in T9 mode.
  - **T9 Dictionary:** Allows you to add, delete, reset, and modify words.
- **Delivery Options**
  - **Delivery Report:** Allows you to set the deliver report to On or Off.
- **Save to Drafts:** Saves the message to Drafts.
- **Cancel Message:** Allows you to exit the text input mode without saving your message.

## Sending a Message


After completing a message, press the **OK Key**  **Send** to send a message.

## Messages

You will be alerted when you receive a message. New messages are stored in the Inbox. In the Inbox, you can identify each message by icons. If you are notified that you have received a multimedia message, you can download the whole multimedia message by selecting it in the Inbox menu. To reach the Inbox, from the standby screen, press the **Left Soft Key**  **Menu** > **Messages**

 >  **Messages.**

When you press the **Right Soft Key**  **Reply**, you can reply to the sender of the message.

While viewing the message, press the **Left Soft Key**  **Options** for the following options:

**Add to Contact:** You can save the sender's phone number in the Contact List.

**Delete:** You can delete the selected message.

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

**Extract Data:** You can extract contact information from the message and save it.

**Copy to SIM/Copy to Phone:** You can copy the message to the phone or SIM card depending on where the text message is stored.

**Move to SIM/Move To Phone:** You can move the message to the phone or SIM card depending on where the text message is stored.

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

**Lock Message:** You can lock the message.

**Message Details:** You can view the following information about received messages: Type, Subject, From, and Time.

## Drafts

Allows you to view and edit the messages saved as drafts. To access drafts, from the standby screen, press the **Left Soft Key**  **Menu**, **Messages** , and  **Drafts**. When you press the **Right Soft Key**  **Delete**, it allows you to delete the message.

While viewing the Drafts, press the **Left Soft Key**  **Options** for the following options:

**Select Multiple:** Allows you to select multiple messages to delete.

**Message Details:** Allows you to view the details of the message.

## Message Settings

To access and configure your Message Settings, from the standby screen, press the **Left Soft Key**  **Menu, Messages**  and  **Message Settings**.

### Message Alert

Allows you to set the Sounds, Volume, Alert Type, and Alert Interval.

### Inbox View

Allows you to switch the Inbox view mode to Conversation View or Standard View.

### Storage

Allows you to delete old messages. Choose from On or Off. If you choose On, you can set the text and multimedia message limit.


### Signature

Allows you to create, edit, and delete your signature, which can be configured to be sent out with your outgoing messages.

### Text Message

Allows you to set preferences for text messages.

The following options are available:

**Text Templates:** Predefined messages that can quickly be sent. Press the **Left Soft Key**  **Options** to access the following available options:

- **Send:** Allows you to send the selected template via Message.
- **Delete:** Allows you to delete the selected template message.
- **Edit:** Allows you to edit the selected template message.



# Messages

- **Delete All:** Deletes all messages in the folder.
  - **Cancel:** Returns to Text Message Settings menu.
- Msg Center No.:** Allows you to view the phone number for the Message Center.
- Delivery Report:** Allows you to set the delivery report to On or Off.
- Insert Signature:** Allows you to insert your signature in outgoing messages.

## Multimedia Message

Allows you to set your preferences for multimedia messages.

The following options are available:

- Multimedia Templates:** Allows you to add, edit, and delete multimedia templates. Press the **Right Soft Key**  **New** to create a new multimedia template. Press the **Left Soft Key**  **Options** while creating a message to access the following available options:
- **Text Entry Mode:** Sets the text input mode. For more details, refer to Entering Text (page 13).
  - **Text Entry Settings**
    - **Text Entry Language:** Allows you to set the text entry language to English or Spanish.
    - **T9 Word Candidate List:** Displays the word candidates as you type.
    - **T9 Next Word Prediction:** Allows the phone to predict the next word when typing in T9 mode.
    - **T9 Dictionary:** Allows you to add, delete, reset, and modify words.
  - **Cancel:** Allows you to exit the text input mode without saving your message.
- Priority:** Allows you to set the priority from **Low**, **Normal**, and **High**.
- Allow Delivery Reports:** Allows you to send the delivery report message.
- Allow Read Reports:** Allows you to send the read report message.
- Download Options**
- **Download Without Ask:** Allows multimedia messages to be downloaded automatically.
  - **Ask Always:** You are prompted to download when a multimedia message is received.

- **Discard:** Enabling this option will block incoming multimedia messages from being received.

### **Roaming Auto-retrieve**

Allows you to set the Roaming Auto-retrieve feature to On or Off. Selecting On will allow the device to download multimedia messages while roaming.

### **Convert to MMS**

Allows you to set the Convert to MMS feature to On or Off. Selecting On will allow the device to automatically convert to MMS message when you send an SMS message.

## **Group Messaging**

Allows you to set the Group messaging feature.

**Group Conversation:** Recipients can reply to the whole group.

**Individual Messages:** Recipients can reply only to you.

## **Voicemail**

This menu allows you to set the Voicemail Center Number if this feature is supported. Please check for details of your service in order to configure the phone correctly.

## **Service Message**





Allows you to set the service message from **Ask Always**, **Discard**, and **Save Without Ask**.

## **Emergency Alerts**




Allows you to set the emergency alerts.

## Sending an email using your new account

To send/receive an email, you should set up an email account.

- 1 Press the **Left Soft Key**  **Menu**, select **Email**  and choose the account you want to use.
- 2 Press the **Left Soft Key**  **Options** and choose **4 Grid Write Email** to write an email.
- 3 Enter the recipient's address in the **To** field. Then use the down Navigation Key to access the Subject and Messages fields.
- 4 Enter your message using the keypad and press the **OK Key**  **Send** to send the email.

## Retrieving your email

- 1 Press the **Left Soft Key**  **Menu**, and select **Email** .
- 2 Select the account you want to use.
- 3 Press the **Left Soft Key**  **Options** and then press **2 sec Refresh** to connect to your email account and retrieve your new messages.

## Message folders

Open Email, press the **Left Soft Key**  **Options**, and select **1 sec Mailbox**. The list of folders will be displayed.

**Write Email:** Create your new message.

**Inbox:** All the e-mails you receive are placed into your Inbox. From here you can reply, forward and more.







**Drafts:** If you don't have time to finish writing a e-mail, you can save what you have written so far in here.

**Outbox:** This is a temporary storage folder while e-mail are being sent or stores the messages that are failed to sent.

**Sent:** Copies of all the e-mail you send are kept into your Sent folder.

**Trash:** All the e-mail you remove are placed into your Trash.

## Changing your email settings

1 Press the **Left Soft Key**  **Menu**, choose **Email**  > **Left Soft Key**  **Options** >  **Mailbox** >  **Options** >  **Settings**.

2 Set any of the following options.

**Accounts:** You can edit e-mail account settings.


**Frequency:** Choose how often you want to synchronize the account and check for new messages.

**Notification:** Choose whether or not to be alerted to new emails.

**Default Account:** Choose which account to compose e-mail by default.

**Signature:** Create an email signature and switch this feature on.

# Alarm Clock


The alarm function allows you to set up multiple separate alarms. You can also set the time, repetition interval, and alarm tone. If there is no alarm setting, press the **Left Soft Key**  **New** to add a new alarm.



To access Alarm Clock, from the standby screen, press the **Left Soft Key**  **Menu**, and **Alarm Clock** .

## Edit Alarm

**Time:** Input your desired alarm time by specifying the hour and minutes. You can also choose a predefined amount of time (**15 Minutes Later**, **30 Minutes Later**, **45 Minutes Later**, **1 Hour Later**, **Off**).

**Repeat:** Select the desired repeat mode (**Once**, **Daily**, **Mon ~ Fri**, **Sat ~ Sun**, **Select Weekday**).

**Alarm Tone:** Press the **OK Key**  **List** to access the list of available Alarm Tones.

**Volume:** Press the **OK Key**  **List** and then set the volume of the alarm by pressing the up and down **Volume Keys**. Then press the **OK Key**  **Set**.

**Type:** Select the Ring Alert Type between **Ring**, **Vibrate**, **Ring & Vibrate** and **Vibrate after Ring**.

**Memo:** Enter an alarm name.

**Snooze Interval:** Select the snooze interval between **5 Minutes**, **15 Minutes**, **30 Minutes**, **45 Minutes**, **1 Hour** and **Off**.

Press the **Left Soft Key**  **Save** to save your new Alarm.



# Browser

The Browser is one of the services provided by your network operator and it gives you access to all the cool things you can do with your wireless phone.

**NOTE:** Check the availability of 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.

## Launch the Browser

To launch the browser from the standby screen, press the **Left Soft Key**  **Menu** and select the **MetroWEB** .

To exit the browser at any time, press the **End/Power Key** .

## Using the Browser

Once you are connected to the Internet, the following menu options are available when you press the **Left Soft Key**  **Options:**

**Refresh:** Allows you to reload the current web page so that you can view the newest content.

**Home:** Directs you to the homepage.

**Zoom:** Allows you to zoom in/out for better look.

**NOTE:** You can also adjust the Browser text and image size by pressing the up and down **Volume Keys** to zoom in and out.

**Windows:** You can have several browser windows to navigate different web pages at the same time.

**Enter URL:** Allows you to enter URL you desire to visit.

**Bookmarks:** You can add or save the current page to Bookmarks or view the list saved under Bookmarks.

**Search Text:** Allows you to search the text.

**Send Link:** Allows you to send the URL of the current page via message or Email to another person.

# Browser

**Recent Pages:** Allows you to view your history of recently viewed web sites.

**Settings:** Allows you to set options for web pages and appearance.



## Menus for the Browser

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

## Using the Navigation Keys

When surfing the Internet, the **Navigation Keys** function similarly from when the phone is on standby mode.

# Camera

To access Camera from the standby screen, press the **Left Soft Key**  **Menu** and select **Camera** .

## Take Photo

Using the camera 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 following options will appear (as icons) at the bottom of the screen.

**Album:** Allows you to see saved image and video files.

**Video:** Allows you to switch to Camcorder mode.

**Capture:** Allows you to capture the image.

**Zoom:** Allows you to set the zoom level.

**Brightness:** Allows you to set the Brightness.

Press the **Right Soft Key**  **Settings** for the following options:

## Preview Tab

**Image Size:** The resolution of the image can be captured in 1280\*960, 640\*480, 320\*240.

**Color Effects:** Allows you to choose from Off, Mono, Sepia, or Negative.

**White Balance:** Set the White Balance as Auto, Daylight, Cloudy, Illuminate, or Indoors.

**Night Mode:** Set Night Mode to On or Off.

**Timer:** Timer can be set to Off, 3 Seconds, 5 Seconds, or 10 Seconds.

### Shot Mode

- **Normal:** This set as normal camera mode.
- **Continuous Shot:** This is great for taking photos of moving objects or at sporting events. The continuous shot is only available in QVGA(320x240) mode and can be set to 3, 6, or 9 shots per event.

**Image Quality:** The quality of the captured image can be set to Super Fine, Fine, or Normal.

## Others Tab

**Shutter Tones:** You can choose from Tone 1, Tone 2, Tone 3, or Off.

**Reset Settings:** Allows you to set the Camera to the default settings.

## Using Zoom

In Camera mode, you can zoom in and out by using the up and down **Volume Keys**. The maximum zoom scale depends on the resolution as follows.

Resolution	Zoom scale
1280*960	Not Available
640*480	Level 1 ~ Level 10
320*240	Level 1 ~ Level 10

## Record Video

Allows you to record a video clip with your phone.

The following options will appear (as icons) at the bottom of the screen.

**Album:** Allows you to see saved image and video files.

**Photo:** Allows you to switch to the Camera function so you to take a picture.

**Rec:** Allows you to begin recording the video.

**Zoom:** Allows you to set the zoom level.

**Brightness:** Allows you to set the Brightness.

Press the **Left Soft Key**  **Settings** for the following options:

## Preview Tab

**Color Effects:** Allows you to choose from Off, Mono, Sepia, or Negative.

**White Balance:** Set the White Balance as Auto, Daylight, Cloudy, Illuminate, or Indoors.

**Video Quality:** Allows you to set video quality to Super Fine, Fine, or Normal.

**Duration:** Set the recording duration to General Mode or MMS Video Mode.

## Others Tab

**Recording Tones:** Allows you set Recording Tones to On or Off.

**Reset Settings:** Allows you to set the Camcorder to the default settings.

**NOTE:** In Video mode, you can adjust the zoom scale by using the up and down **Volume Keys**. The zoom scale ranges from Level 1 to Level 9.


## Album

Allows you to view the pictures and videos that are captured with the camera.

To access Camera Album, from the standby screen, press the **Left Soft Key**



**Menu** and select **Album** 

When a file is highlighted, the following options are available when you press the **Left Soft Key**  **Options:**

For image file:

**Use As/Send Via/Print Via Bluetooth/Delete/Rename/Select Multiple/File Information.**





For video file:



**Send Via/Delete/Rename/Select Multiple/File Information**


# Calendar

When you enter this menu, a calendar will be displayed. The red square cursor is used to locate a particular day. The bottom bar on the calendar indicates saved schedules (if any) for that day. This function helps you keep track of your schedule. The phone can sound an alarm tone if it has been set for a specific schedule item.

The chart below shows the keys that can be used to navigate the Calendar:

Key	Description
	Weekly
	Daily
	Annually
	Monthly

To access Calendar, from the standby screen, press the **Left Soft Key**  **Menu** and **Calendar** .

The following options are available when pressing the **Left Soft Key**  **Options**.

**Search:** Allows you to search the saved schedule(s).

**Set Holiday:** Allows you to set specific dates to display as Holidays on your calendar.

**View All:** Allows you to view all saved schedules.

**Week View:** Allows you to view the calendar by week.




**Go to Date:** Allows you to jump to a specific date.

**Selective Delete:** Allows you to delete Old Schedules or All Schedules selectively.

**Settings:** Allows you to set various calendar settings.

# My Folder




## Audio

To access Audio, from the standby screen, press the **Left Soft Key**  **Menu**, **My Folder**  and **1**  **Audio**.

**Record Voice:** Allows you to record voice notes.

Saved audio files are displayed in the list.

## Pictures

To access Pictures, from the standby screen, press the **Left Soft Key**  **Menu**, **My Folder**  and **2**  **Pictures**.

**Take Photo:** Allows you to take a picture.

The picture files saved on your phone are displayed.

## Music

You can access Music by pressing the **Left Soft Key**  **Menu**, **My Folder**  and **3**  **Music**.

The following options are available:

**All Songs:** Allows you to view all the songs in your music library.

**Playlists:** Allows you to create your own playlists.

**Artists:** Shows the list of artists of all the songs in your music library, and shows all the songs by a chosen artist.

**Albums:** Shows the list of albums of all the songs in your music library, and shows all the songs on a chosen album.

**Genres:** Shows the list of genres of all the songs in your music library, and shows all songs of a specific genre.

**Shuffle Songs:** Allows you to play all the songs in your music library in random order.

### TIP!





The music player plays formats such as MP3, AAC, AAC+, and WMA.

## My Folder

**NOTE:** Music files may be protected by copyright and intellectual property laws. Please ensure that you adhere to the applicable Terms of Use of materials laws prior to downloading or copying files.

### Playing Music

To listen to music that you have in your phone, follow these quick easy steps:

- 1 Press the **Left Soft Key**  **Menu** and **My Folder** .
  - 2 Select **Music** and then choose from **Now Playing**, **All Songs**, **Playlists**, **Artists**, **Albums** and **Genres** or **Shuffle Songs** to shuffle your collection.
- Press the **OK Key**  **Play/Pause** to play and pause a selected song. While playing, press the up or down **Navigation Keys** to change the volume and the left or right **Navigation Keys** to go to the previous or next song.
  - While playing music, press the **Left Soft Key**  **Options** to access other functions while music is playing.

### Adding Music To Your Phone

Music files can be added to your phone by using one or more of the following methods:

- Download music and ringtones over the network directly to your device.
- From your PC using music subscription services.



**NOTE:**

Some sites are data intensive (i.e. previews via streaming) so the user should be enrolled in an unlimited data plan before using these services to avoid per-use data charges.

Additional charges may apply when downloading music, ringtones, etc.



## Video

To access Video, from the standby screen, press the **Left Soft Key**  **Menu**, **My Folder**  and **4 GHz** **Video**.


**Record Video:** Allows you to record a video.

The video files saved on your phone are displayed.

**NOTE:** Please note that DRM can restrict some functions, such as sending and editing.

## Other Files

When you receive files of an undefined format (such as .vcs, .vcf, etc.) via email, the files are saved in this folder.

To access Other Files, from the standby screen, press the **Left Soft Key**  **Menu**, **My Folder**  and **5 MHz** **Other Files**.

The following options are available by pressing the **Left Soft Key**  **Options**:

**Send Via:** Send the selected file via Message, Email, or Bluetooth.

**Delete:** Allows you to delete the selected file.

**Move:** Allows you to move the selected file to another folder.

**Copy:** Allows you to copy the selected file to another folder.

**Rename:** Allows you to edit the name of the selected file.

**Select Multiple:** Allows you to select multiple files at once to perform various functions.



**Sort By:** Allows you to sort the files by Name, Date, and Type.

**File Information:** Allows you to view information about the selected file or used memory space on your phone.

### File Manager

This function allows you to view the content in your internal phone memory.

To access File Manager, from the standby screen, press the **Left Soft Key** 

**Menu, My Folder**  and  **File Manager.**




### Games & Apps

This menu allows you to download or access the various games.

To access the Games, from the standby screen, press the **Left Soft Key** 

**Menu, My Folder**  and  **Games & Apps.**

## Voice Command

Voice Command is the function whereby your phone's voice recognition engine identifies the voice of the user and carries out the requested commands. When the user operates the Voice Command function, there are five possible commands, Call <Name or Number>, Listen Voicemail, Missed Calls, Messages, and Time & Date. To activate the Voice Command function, hold down the **Clear/Back Key**  while the phone is in standby mode or press the **Left Soft Key**  **Menu, Tools** , and **1 GO** **Voice Command**.

- 1 Call <Name or Number>:** This function is activated only when the user says the command "Call" followed by the name stored in the address book or say the phone number. Please note that interfering noise might cause a problem displaying candidates. Additionally, the user has the option to select a number type at the end, such as "mobile", "home", or "work".
  - 2 Listen Voicemail:** This command is activated when the user says "Listen Voicemail". The user will then be automatically connected to voicemail.
  - 3 Missed Calls:** This command is activated when the user says the words "Missed Calls". The mobile phone presents the missed call list.
- **Follow-up Commands Available**
    - **Yes:** Make the phone call.
    - **No:** Moves to the next result.
    - **Cancel:** Go back to the main Voice Command menu.
    - **Exit:** Terminate Voice Command.
    - **Next:** Moves to the next result.
- 4 Messages:** This command is activated when the user says "Messages". The phone displays details of unread text or multimedia messages.
  - 5 Time & Date:** This command is activated when the user says "Time & Date". The phone displays the current local time and date.

## Voice Command Options

When the Voice Command option is activated, you can press the **Left Soft Key**

 **Options** for the following options:

- **Mode**

- **Speed:** Voice Command is abbreviated.
- **Normal:** Voice Command is played normally with prompts.

- **Best Match**

- **1 Match:** The most likely match will be displayed when finding a number from the address book.
- **4 Matches:** The four most likely matched names will be displayed when finding a name from the address book.

- **Sensitivity**

- **High:** Operation and performance of the voice recognition engine is rarely affected by the user's voice command and surrounding sound.
- **Medium:** Operation of the voice recognition engine is normally affected by user's voice command and surrounding sound.
- **Low:** Operation of the voice recognition engine is strongly affected by user's voice command and surrounding sound.

- **Spk. On Mode**

- **Automatic On:** When this option is selected, the speakerphone is turned on and the sound is loud enough so you can hear the output when the phone is away from the ear, at a distance
- **Off:** When this option is selected, the speakerphone is turned off and the sound is routed through the earpiece, which makes it quieter and cannot be heard when the phone is away from the ear, at a distance



- **Call Alert**

- **Ring Only:** The phone rings repeatedly during an incoming call.

- **Ring After Name:** The phone announces the name or number of the incoming call, then rings repeatedly.
- **Name Repeat:** The phone announces an incoming call by repeating the name or number of the caller.

## Notepad



You can create up to a maximum of 30 memos.

To access Notepad, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **2 abc** **Notepad**.

- 1 Press the **Left Soft Key**  **New** to create a new memo.
- 2 Input the memo and press the **OK Key**  **Save** to save.



## Calculator



The Calculator function allows you to calculate simple mathematical equations.

To access Calculator, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **3 012** **Calculator**.

## Tasks

This feature allows you to save and manage a task.

To access Tasks, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **4 012** **Tasks**.

- 1 To add a new task item, press the **Left Soft Key**  **New**.
- 2 Input the Due Date, Note, Priority, and Status information for the new Task.
- 3 Press the **Left Soft Key**  **Save** to save the Task item.

The following options are available in the Task list by pressing the **Left Soft Key**  **Options**:

## Tools

**Mark 'Complete':** Allows you to change the status of the selected task as Completed.

**Edit:** Allows you to edit a saved task.

**Delete:** Deletes the selected task.

**Selective Delete:** Allows you to delete All Completed/All Past Tasks selectively.

**Send Task Via:** Enables the selected task to be sent via Text Message, Multimedia Message, Email, or Bluetooth.

**Select Multiple:** Allows you to select multiple tasks to perform functions on.

**View Calendar:** Allows you to view the Calendar.

## Stopwatch






This menu allows you to record the elapsed time of an event. The duration of an individual lap time (up to 20 laps) and the total time can also be displayed.

To access Stopwatch, from the standby screen, press the **Left Soft Key** 

**Menu, Tools** , and **5 ALL** **Stopwatch**.

**Show Last:** Displays the last time recorded (only available if previous time was not reset).




### New Time

- 1 To start timing, press the **OK Key**  **Start**. The running time is displayed as HH.MM.SS.hh (hours, minutes, seconds, hundredths of a second).
- 2 During the timing, you can record an individual lap time by pressing the **Right Soft Key**  **Lap**. Up to 20 lap times can be recorded.
- 3 You can stop or restart timing by pressing the **OK Key**  again.
- 4 To reset the stop watch, press the **Right Soft Key**  **Reset** after stopping the time, or to save the stop watch, press the **Left Soft Key**  **Options** and then select **Save**.

**Saved Times:** Allows you to see a list of the saved recorded times.

## Tip Calculator

This feature allows you to quickly and easily calculate the tip amount based on the total bill as well as the split of the total bill based on the number of people.

To access Tip Calculator, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **Tip Calculator** .

- 1 Enter the **Total Bill (\$)**, **Tip (%)**, and **Split** amounts.
- 2 The **Tip (\$)** and **You Owe (\$)** amounts will be automatically calculated.

## Unit Converter




This function allows you to convert units of measurement.


There are 6 types of units that can be converted: Area, Length, Weight, Temperature, Volume, and Velocity.

To access Unit Converter, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **Unit Converter** .

## Voice Recorder

Allows you to record an audio clip to your phone. The recorded audio file is saved automatically in the Audio menu.

To access Record Voice, from the standby screen, press the **Left Soft Key**  **Menu, Tools** , and **Voice Recorder** .

The following options are available when you press the **Left Soft Key**  **Options**.

**Record Mode:** Sets the recording mode to either MMS Mode or General Mode.

**Quality:** Allows you to set the quality of an audio clip. You can set it to Fine, Normal, or Economy.

When you press the **Right Soft Key**  **Gallery**, it will take you to the Audio gallery.

# Settings

## Audio & Ringtones

This menu allows you to configure the audio and ringtone settings for your phone.

To access Audio & Ringtones, from the standby screen, press the **Left Soft Key**  **Menu, Settings** , and  **Audio & Ringtones**.

### Ringtone

**Sounds:** Allows you to set a sound as the ringtone for your phone.

**Volume:** Allows you to control your Ringtone volume.

**Alert Type:** Supports 3 ring alert types: Ring, Ring and Vibration, and Ring after Vibration.

**Increasing Ringtone:** Allows you to select an Increasing Ringtone type which is played when you receive an incoming call.

**NOTE:** Full length music tracks cannot be set as either ringtones or message tones.

### Message Tone

**Sounds:** Allows you to set a sound as your message tone.

**Volume:** Allows you to control your Message Tone volume.

**Alert Type:** Supports 4 message alert types: Silent, Vibrate, Ring Only, Ring & Vibrate.

**Alert Interval:** Allows you to set the interval alert to Once, Every 2 min, or Every 15 min.

### Alert Tone

**Sounds:** Allows you to select a set of alert tones. Supports 2 alert tone types: Alert Tone 1 and Alert Tone 2.

**Volume:** This menu allows you to control your Alert Tone volume.

**Alert Type:** You can select to turn Alert Tones to Ring or Silent.



## Keypad Tone

**Sounds:** Allows you to select a tone that the phone sounds when a key is pressed on the dialpad. You can select an option from **Beep** and **Voice**.

**Volume:** Allows you to control your Keypad Tone volume.




## Multimedia

This menu allows you to control your Multimedia volume.

## Call

This menu allows you to control your Call volume.

## Phone Settings

This menu allows you to configure the Phone Settings. To access Phone Settings, from the standby screen, press the **Left Soft Key**  **Menu, Settings**  and  **Phone Settings**.

## Date & Time

**Set Date:** Allows you to enter the day, month, and year. You can set to Auto Update with the Auto Update menu.

**Date Format:** Allows you to select the date format.

ddd, MMM DD (day, month date)

MM/DD/YYYY (month/date/year)

DD/MM/YYYY (date/month/year)

YYYY/MM/DD (year/month/date)

**Set Time:** Allows you to enter the current time. You can choose the time format via the Time Format menu option.

**Time Format:** Allows you to choose the time format between 12 Hours and 24 Hours.

**Auto Update:** Allows you to set the phone to automatically update the time and date according to the current local time zone.

# Settings

## Languages

Allows you to change the language for the display text on your phone. This change will also affect the Language Input mode.

## Set Hotkeys

Allows you to change the preferences on the Hotkeys that are currently assigned for your **Navigation Keys** (when in standby mode).

## Flight Mode

This allows you to only use the phone's features that do not require the use of the wireless network, excluding emergency calls, when you are in an airplane or in places where the wireless network is prohibited. If you set the flight mode on, the flight mode icon will be displayed on the screen instead of the network signal icon.

**On:** You cannot make (or receive) calls, excluding emergency calls, or use other features that require network coverage.

**Off:** You can deactivate the flight mode to access the network.

## Security

Various codes and passwords are used to protect the features and settings of your phone.

**Phone Lock:** You can use a security code to avoid unauthorized use of the phone. If you set the Phone Lock to **When Power On**, the phone will request a security code whenever you switch the phone on. If you set the Phone Lock to **When SIM Changed**, your phone will request a security code only when you change your SIM Card. If you set the Phone Lock to **Lock Phone Now**, your phone will lock immediately.

**PIN Request:** When the PIN Request feature is turned on, 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 setting the PIN Request feature off, you must enter your PIN.

**Fixed Dial Number:** This feature allows you to restrict your outgoing calls to selected phone numbers, if supported by your SIM Card. The PIN2 code is required.

- **FDN On/Off**

- **On:** You can only call phone numbers stored in the FDN List. You must enter your PIN2 code.
- **Off:** You can call any number.

- **FDN List:** Allows you to enter a new FDN entry.

**Change Codes:** 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 for: **Security Code, PIN Code, PIN2 Code.**

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

## Reset Settings

This function allows you to restore factory settings. To do this, you need the security code.

**Master Reset:** Restores the phone settings (e.g.: Audio, Display, Language, Bluetooth Settings) to default values.

**Master Clear:** Deletes downloaded/user created contents (e.g.: images, videos) from the phone.




- **Phone**

- Deletes all downloaded/user created images and audios from the phone memory.
- Deletes personal information stored in the phone memory (e.g.: Contacts, Messages, Tasks, Alarm, Calendar Schedules).
- Restores the settings stored in the phone memory to the default values.

# Settings

## Display

This menu allows you to configure your Display settings.

To access Display, from the standby screen, press the **Left Soft Key**  **Menu**, **Settings**  and  **Display**.

## Wallpapers

This menu allows you to set a picture or color as your background.

## Fonts

You can configure the font size and color of the font that your phone uses.

## Clocks & Calendar

This feature allows you to select a Clock or Calendar to display on the standby screen.

## Brightness

You can set the brightness of the display screen.

## Backlight Timer




Use this to set the duration of the display backlight and keypad.

## Menu Styles

You can set the main menu style to Icon or List view.

## Call

This menu allows you to configure your Call settings.

To access Call, from the standby screen, press the **Left Soft Key**  **Menu**, **Settings**  and  **Call**.


## Call Forwarding

This menu allows you to select when to forward calls to another number.

## Send My Number

This network service allows you to set your phone number to be displayed or hidden from the person you are calling. You can select **Set by Network** if you prefer to have different settings for different service providers.

## Auto Redial



If set to On, your phone redials the number you're trying to call up to 10 times after you hear a quick, busy signal. Press the **End/Power Key**  to stop the call attempts.

This feature attempts to redial numbers that are engaged due to the wireless network. It does not redial numbers to an engaged party.

**NOTE:** There will be no alert indicating the call has been connected. You must stay on the line to hear when the call is connected.

## Answer Mode

This allows you to determine how to answer the phone.

**Any Key:** Allows you to answer an incoming call by pressing any key, except the **End/Power Key** , **Volume Keys**, or the **Right Soft Key**  **Silent**.

**Send Key Only:** Allows you to only answer an incoming call by pressing the **Send Key**  or **Left Soft Key**  **Accept**.

**Flip Open:** Allows you to Flip open the phone to answer an incoming call.

## Senior Mode

Senior mode is a function that amplifies a sound for seniors to hear the voice well by emphasizing a low voice. It is used for enhancing the speech quality while you are on the phone.

You can set the Senior Mode to On or Off.

# Settings

## Minute Minder

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

## Call Waiting

This menu allows you to activate and deactivate call waiting on your device. You can also view the current Call Waiting status.

## Call Reject

This menu allows you to enable or disable call reject for all numbers or just the numbers on the Call Reject List.

**Call Reject On/Off:** Allows you to activate or deactivate Call Reject. When the **Reject All Calls** option is set, all incoming calls are routed directly to Voicemail. **Reject on List** allows you to enable Call Reject for the numbers saved on your Call Reject List.

**Call Reject List:** Allows you to view a list of the numbers you wish to reject and add new numbers to the list. You have the option of choosing numbers from your Contact List or adding a new number.

## Send DTMF Tones

Allows you to manage DTMF tones. Select from On or Off.

## Time & Cost

Allows you to view information about Call Duration and Data Counter.



## Accessibility

**TTY:** Allows you to enable TTY Mode in order to contact other TTY devices. Select from **TTY Full**, **TTY Talk**, **TTY Hear**, **TTY Off**.

**Hearing Aid:** Allows you to turn the hearing aid functionality On or Off.

## Accessibility

This menu allows you to easily control various accessibility options.

To access Accessibility, from the standby screen, press the **Left Soft Key**  **Menu**, **Settings** , and **Accessibility** .

### Menu Readout

This option allows the phone to read out menus that are accessed.

### Keypad Tone

**Sounds:** Allows you to select a tone that the phone sounds when a key is pressed on the dialpad. You can select an option from **Beep** and **Voice**.

**Volume:** Allows you to control your Keypad Tone volume.

### Large Text

Allows you to set a large size for text. Select from On or Off.

### Invert Color

Allows you to set the color contrast for better screen viewing. Select from On or Off.

### Mono Sound

Allows you to enable or disable the Mono Sound function.

### Senior Mode

Allows you to turn the senior mode on or off. Senior mode enhances high frequencies to reduce the effects of hearing loss.

### TTY

Allows you to enable TTY Mode in order to contact other TTY devices. Select from **TTY Full**, **TTY Talk**, **TTY Hear**, or **TTY Off**.

# Settings

## Hearing Aid

Allows you to enable or disable the Hearing Aid function.

## Voice Command



Allows you to set the Voice Command options. Refer to page 41.

## Bluetooth


Your phone has built-in Bluetooth wireless technology, which makes it possible for you to connect your phone wirelessly to other Bluetooth devices such as a hands-free device, PC, laptop, or other phones. The devices registered in your phone can only be connected one at a time (To make a connection to the same type of device or change Bluetooth preferences, disconnect the existing device first).

You can also exchange, for example, business cards, calendar items, and pictures.


To access Bluetooth, from the standby screen, press the **Left Soft Key** 

**Menu, Settings**  and  **Bluetooth.**


### Hands-free profile

This  appears when the hands-free profile is used between the hands-free device. This allows you to call using a Bluetooth connection.

### A2DP profile

This  appears when the A2DP profile is used between the stereo headset device and the phone. This allows you to listen to an audio clip. A2DP is the Advanced Audio Distribution Profile, which provides support for streaming either mono or stereo audio using Bluetooth.

### Hands-free + A2DP profile

This  appears when both profiles of the hands-free and the A2DP are used between the compatible device and the phone. This allows you to call and listen to an audio clip using a Bluetooth connection.



When using each device, see the manual that comes with the device.

**NOTE:** We recommend that your phone and the Bluetooth device you are communicating with should be no more than 10 meters apart. The connection may be improved if there are no solid objects between your phone and the other Bluetooth device.

## Turn On/Off

Allows you to turn your Bluetooth functionality on or off.

## Search New Device

This function allows you to search for and add new devices.

## My Devices

This function allows you to view the list of all devices that are paired with your phone.

## My Bluetooth Info

This menu allows you to configure the profile for Bluetooth.

**My Device Visibility:** Allows you to set your device to be visible to other Bluetooth devices.

**Device Name:** Allows you to change the phone's name which can be seen by other Bluetooth devices.

**Supported Services:** Shows you all services that the phone supports.

**My Bluetooth Address:** Displays your device's Bluetooth address.


### To pair with another device

- 1 From the standby screen, press the **Left Soft Key**  **Menu, Settings**  **Bluetooth**, and **Search New Device**.
- 2 If you want to stop searching, press the **Right Soft Key**  **Cancel**.
- 3 All of the devices found are displayed.
- 4 Select the desired device by pressing the **OK Key**  **Add** and entering the password.

# Settings

## Memory

This menu allows you to configure your Memory settings.

To access Memory, from the standby screen, press the **Left Soft Key** 

**Menu, Settings**  and **7 POKI** **Memory**.

## Used Space

This function shows the memory status of the phone.

### Phone Common

This function shows the Memory Status of the phone and the memory being used by Audio, Pictures, Video, Multimedia Msg, Email, Java, and Others types of files.

### Phone Reserved


This function shows the status of the reserved memory used by Text Message, Contacts, Calendar, Tasks, and the Notepad.

### SIM Card

This function shows the status of the SIM Card memory.

## Applications

This menu allows you to configure application settings.

To access Applications, from the standby screen, press the **Left Soft Key** 

**Menu, Settings**  and **8 NEW** **Applications**.

## Messages


This option allows you to configure the Messaging settings.

For more details, refer to Message Settings on page 25.

## Browser


This menu allows you to configure the Browser settings.

## Accounts

This includes the network information used to connect the Browser to the Internet. Select the desired account by highlighting it and pressing the **Right Soft Key**  **Activate**. This will activate the account that will be used for future connections.

**Activate:** Select the account among the list of accounts, so it can be used for future connections.

**View:** Allows you to see the specific account information.

The following options will be available when you press on the **Left Soft Key**  **Options:**

**Edit:** Allows you to change the account information. This option is not available for the default Account.

**Delete:** Allows you to delete the account.

**New:** Allows you to create new account.

### NOTE:

You cannot edit and delete pre-installed accounts.

- In order to create a new account, please fill in the network information.

**1** Account Name: Name associated with new account.

**2** Homepage: Homepage URL.

**3** Internet Profile: You can choose one from the Internet profiles.

- Creating or editing an account requires caution. The Browser cannot connect to the Internet if the account information is incorrect.

## Appearance

You can choose the settings of the browser appearance (Text Size, Character Encoding, Show Image, Java Script).

## Cache

The web pages you have accessed are stored in the phone memory. This menu allows you to manage that function.

**Clear Cache:** Remove all cached data in the memory.

# Settings

**Cache:** Allows you to turn the memory cache on or off.

**NOTE:** Cache is a type of buffer memory, which is used to store data temporarily, especially when it is online.

## Cookies

The information of services you have accessed are stored in what is called a cookie. From this menu, you can choose to allow cookies or to delete cookies that are already on your phone.

## Clear Login Info.

You can delete the history of ID or Password information that you have saved previously.

## Screen Settings

You can change the settings of the browser screen (Rendering Mode).

## Security

A list of the available certificates is shown.

**Certificates:** You can see the list of certificates and view them in detail.

**Clear Session:** Removes the secure session.

## Navigation Mode

You can change the methods of browser navigation.

**4 Way Navigation:** The cursor of the browser moves scroll amounts or follows hyperlinks.

**Mouse Pointer:** You can move the cursor like a mouse pointer.

## Secure Popup

You can activate or deactivate the pop-up which indicates a secure page.

## Shortcuts

If set to On, you can use the Browser more quickly and conveniently with the keypad in the phone. If Shortcuts is on, the following shortcuts are available:

1. Enter URL
2. This Page
3. View Bookmarks
4. Info.
5. Full Screen
6. Saved Pages
7. Page Up
8. Recent Pages
9. Zoom In
0. Search Text
- \*. Page Down
- #. Zoom Out

You can adjust the Browser text and image size by pressing the up and down **Volume Keys** to zoom in and out.

## Voice Command

Allows you to set the Voice Command settings. Refer to page 41.

## Connection

This menu allows you to configure your Connection settings.

To access Connection, from the standby screen, press **Left Soft Key**  **Menu, Settings** , and  **Connection**.

## Network Selection


Allows you to set the network mode from **Automatic** or **Manual**.

**NOTE:** This menu may be different depending on your SIM card.

## Internet Profiles

This menu shows the Internet Profiles. You can add, delete, and edit Internet Profiles by pressing the **Left Soft Key**  **Options**.




## Access Points

This menu shows the Access Points. You can register, delete, and edit by pressing the **Left Soft Key**  **Options**.

## System Update




The user can check for the software update using the menu "Check for software updates". If the new software does not exist the user can not use this feature in 24 hours.

Before updating new software after downloading it from the network server, users can decide whether they would like to postpone the operation. Reminder times can be set to 1, 3, 6 hours or one day. When the time is up, users are prompted again or users can resume the postponed operation using this menu at any time. The software update can only be postponed three times and will automatically start after the third postpone period expires.

To access Software Update, from the standby screen, press the **Left Soft Key**  **Menu, Settings** , and  **System Update**.

## Phone Information

This menu is used to view the following information: My number, Manufacturer, Model Name, Device ID, Hardware Version, Software Version, Language, ICCID.

To access Phone Information, from the standby screen, press the **Left Soft Key**  **Menu, Settings** , and  **Phone Information**.

## Accessories

There are a variety of accessories available for your mobile phone, some of which may be sold separately. 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.



### Battery

Standard battery is available.



### NOTE:

- Always use genuine LG accessories. Failure to do this may invalidate your warranty.
- Accessories may be different in different regions; please check with our regional service company or agent for further enquiries.

# For Your Safety

## Safety Information

Please read and observe the following information for safe and proper use of your phone and to prevent damage.

**WARNING!** This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm. ***Wash hands after handling.***

**Caution** Violation of the instructions may cause minor or serious damage to the product.

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per CTIA Certification Requirements for Battery System Compliance to IEEE1725. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.
- Only authorized service providers shall replace battery (If the battery is non-user replaceable).
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.



- Repairs under warranty, at LG's option, may include replacement parts or boards that are either new or reconditioned, provided that they have functionality equal to that of the parts being replaced.
- For those host devices that utilize a USB port as a charging source, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.
- Use and store your phone in temperatures between 0°C/32°F and 45°C/113°F, if possible. Exposing your phone to extremely low or high temperatures may result in damage, malfunction, or even explosion.

## **Charger and Adapter Safety**

- The charger and adapter are intended for indoor use only.
- Insert the battery pack charger vertically into the wall power socket.
- Unplug the power cord and charger during lightning storms to avoid electric shock or fire.
- Use the correct adapter for your phone when using the battery pack charger abroad.

## **Battery Information and Care**

- Please read the manual of proper installation and removal of the battery.
- Please read the manual of specified charger about charging method.
- Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
- Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Short-circuit of the terminal may damage the battery and cause an explosion. Always cover the receptacle when not in use.

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- Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- Never store your phone in temperature less than  $-4^{\circ}\text{F}$  or greater than  $122^{\circ}\text{F}$ .
- Charging temperature range is between  $32^{\circ}\text{F}$  and  $113^{\circ}\text{F}$ . Do not charge the battery out of recommended temperature range. Charging out of recommended range might cause the generating heat or serious damage of battery. And also, it might cause the deterioration of battery's characteristics and cycle life.
- Do not use or leave the battery under the blazing sun or in heated car by sunshine. The battery may generate heat, smoke or flame. And also, it might cause the deterioration of battery's characteristics or cycle life.
- The battery pack has protection circuit to avoid the danger. Do not use near places that can generate static electricity more than 100V which could damage the protection circuit. Damaged protection circuits may generate smoke, rupture or ignite.
- When using the battery for the first time, if it emits a bad smell, you see rust on it, or anything else abnormal, do not use the equipment and bring the battery to the shop which it was bought.
- Keep batteries away from babies and small children. If children use the battery, their parents or legal guardians are responsible for supervising and teaching them about the safe handling of batteries and how to use batteries according to the manual with care.
- If liquid from the battery rubs against skin or clothing, wash with fresh water. It may cause the skin inflammation. Remove and do not use the battery. Be careful that children do not swallow any parts (such as earphone, connection parts of the phone, etc.). This could cause asphyxiation or suffocation resulting in serious injury or death.
- Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. This could cause a fire.

- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.

## Care and Maintenance

Your mobile device is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years:

### **Keep your Mobile Device away from:**

#### **Liquids of any kind**

Keep the mobile device dry. Precipitation, humidity, and liquids contain minerals that will corrode electronic circuits. If the mobile device does get wet, do not accelerate drying with the use of an oven, microwave, or dryer, because this may damage the mobile device and could cause a fire or explosion.

Do not use the mobile device with a wet hand.

Doing so may cause an electric shock to you or damage to the mobile device.

#### **Extreme heat or cold**

Avoid temperatures below 0°C / 32°F or above 45°C / 113°F.

#### **Microwaves**

Do not try to dry your mobile device in a microwave oven. Doing so may cause a fire or explosion.

#### **Dust and dirt**

Do not expose your mobile device to dust, dirt, or sand.

#### **Sunscreen lotion**

Do not expose or wear your device to any liquid like sunscreen lotion.

Doing so may cause your device to or damage to the mobile device.

#### **Cleaning solutions**

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the mobile device.

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Wipe it with a soft cloth lightly dampened in a mild soap-and-water solution.

### **Shock or vibration**

Do not drop, knock, or shake the mobile device.

Rough handling can break internal circuit boards.

### **Paint**

Do not paint the mobile device. Paint can clog the device's moving parts or ventilation openings and prevent proper operation.

### **General Notice**

- An emergency call can be made only within a service area. For an emergency call, make sure that you are within a service area and that the phone is turned on.
- Do not place items containing magnetic components such as a credit card, phone card, bank book, or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.
- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ringtones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ringtone to vibration so you don't disturb others.
- Do not turn your phone on or off when putting it to your ear.

- Your phone is an electronic device that generates heat during normal operation. Extremely prolonged, direct skin contact in the absence of adequate ventilation may result in discomfort or minor burns. Therefore, use care when handling your phone during or immediately after operation.

Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely and do not touch the antenna unnecessarily.

### **Part 15.19 statement**

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

### **Part 15.21 statement**

Change or Modifications that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

### **Part 15.105 statement**

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. if this equipment does cause harmful interference or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **FCC RF Exposure Information**

**WARNING! Read this information before operating the phone.**

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to Radio Frequency (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.

### **Body-worn Operation**

This device was tested for typical body-worn operations with the back of the phone kept

0.59 inches (1.5 cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.59 inches (1.5 cm) 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 may not be used. Body-worn accessories that cannot maintain 0.59 inches (1.5 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.)

To satisfy FCC RF exposure requirements, keep 8 inches (20 cm) between the user / bystander and vehicle-mounted external antenna. For more information about RF exposure, visit the FCC website at [www.fcc.gov](http://www.fcc.gov).

### **Caution**

Use only the supplied antenna. Use of unauthorized antennas (or modifications to the antenna) could impair call quality, damage the phone, void your warranty and/or violate FCC regulations.

Don't use the phone with a damaged antenna. A damaged antenna could cause a minor skin burn. Contact your local dealer for a replacement antenna.

## Consumer Information About Radio Frequency Emissions

Your wireless phone, which contains a radio transmitter and receiver, emits radio frequency energy during use. The following consumer information addresses commonly asked questions about the health effects of wireless phones.

### Are wireless phones safe?

Scientific research on the subject of wireless phones and radio frequency ("RF") energy has been conducted worldwide for many years, and continues. In the United States, the Food and Drug Administration ("FDA") and the Federal Communications Commission ("FCC") set policies and procedures for wireless phones. The FDA issued a website publication on health issues related to cell phone usage where it states, "The scientific community at large ... believes that the weight of scientific evidence does not show an association between exposure to radiofrequency (RF) from cell phones and adverse health outcomes. Still the scientific community does recommend conducting additional research to address gaps in knowledge. That research is being conducted around the world and FDA continues to monitor developments in this field. You can access the joint FDA/FCC website at <http://www.fda.gov> (under "C" in the subject index, select Cell Phones > Research). You can also contact the FDA toll-free at (888) 463-6332 or (888) INFO-FDA. In June 2000, the FDA entered into a cooperative research and development agreement through which additional scientific research is being conducted. The FCC issued its own website publication stating that "there is no scientific evidence that proves that wireless phone usage can lead to cancer or a variety of other problems, including headaches, dizziness or memory loss."

This publication is available at <http://www.fcc.gov/oet/rfsafety> or through the FCC at (888) 225-5322 or (888) CALL-FCC.

### What does "SAR" mean?

In 1996, the FCC, working with the FDA, the U.S. Environmental Protection Agency, and other agencies, established RF exposure safety guidelines for wireless phones in the United States. Before a wireless phone model is available for sale to the public, it must be tested by the manufacturer and

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certified to the FCC that it does not exceed limits established by the FCC. One of these limits is expressed as a Specific Absorption Rate, or "SAR." SAR is a measure of the rate of absorption of RF energy in the body. Tests for SAR are conducted with the phone transmitting at its highest power level in all tested frequency bands. Since 1996, the FCC has required that the SAR of handheld wireless phones not exceed 1.6 watts per kilogram, averaged over one gram of tissue.

Although the SAR is determined at the highest power level, the actual SAR value of a wireless phone while operating can be less than the reported SAR value. This is because the SAR value may vary from call to call, depending on factors such as proximity to a cell site, the proximity of the phone to the body while in use, and the use of hands-free devices.

For more information about SARs, see the FCC's OET Bulletins 56 and 65 at [http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins) or visit the Cellular Telecommunications Industry Association website at [http://www.ctia.org/consumer\\_info/index.cfm/AID/10371](http://www.ctia.org/consumer_info/index.cfm/AID/10371). You may also wish to contact the manufacturer of your phone.

### **Can I minimize my RF exposure?**

If you are concerned about RF, there are several simple steps you can take to minimize your RF exposure. You can, of course, reduce your talk time. You can place more distance between your body and the source of the RF, as the exposure level drops off dramatically with distance. The FDA/FCC website states that "hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit." Also, if you use your wireless phone while in a car, you can use a phone with an antenna on the outside of the vehicle. You should also read and follow your wireless phone manufacturer's instructions for the safe operation of your phone.



## **Do wireless phones pose any special risks to children?**

The FDA/FCC website states that "the scientific evidence does not show a danger to users of wireless communication devices, including children." The FDA/FCC website further states that "some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all". For example, the Stewart Report from the United Kingdom ["UK"] made such a recommendation in December 2000. In this report a group of independent experts noted that no evidence exists that using a cell phone causes brain tumors or other ill effects. [The UK's] recommendation to limit cell phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists. A copy of the UK's leaflet is available at <http://www.dh.gov.uk> (search "mobile"), or you can write to: NRPB, Chilton, Didcot, Oxon OX11 0RQ, United Kingdom. Copies of the UK's annual reports on mobile phones and RF are available online at [www.iegmp.org.uk](http://www.iegmp.org.uk) and <http://www.hpa.org.uk/radiation/> (search "mobile"). Parents who wish to reduce their children's RF exposure may choose to restrict their children's wireless phone use.

## **Where can I get further information about RF emissions?**

For further information, see the following additional resources (websites current as of April 2005):

### **U.S. Food and Drug Administration**

FDA Consumer magazine

November-December 2000

Telephone: (888) INFO-FDA

<http://www.fda.gov> (Under "C" in the subject index, select Cell Phones > Research.)

### **U.S. Federal Communications Commission**

445 12th Street, S.W.

Washington, D.C. 20554

Telephone: (888) 225-5322

<http://www.fcc.gov/oet/rfsafety>

### **Independent Expert Group on Mobile Phones**

<http://www.iegmp.org.uk>

### **Royal Society of Canada Expert Panels on Potential Health Risks of Radio Frequency Fields from Wireless Telecommunication Devices**

283 Sparks Street

Ottawa, Ontario K1R 7X9

Canada

Telephone: (613) 991-6990

### **World Health Organization**

Avenue Appia 20

1211 Geneva 27

Switzerland

Telephone: 011 41 22 791 21 11

<http://www.who.int/mediacentre/factsheets/fs193/en/>

### **International Commission on Non-Ionizing Radiation Protection**

c/o Bundesamt für Strahlenschutz

Ingolstaedter Landstr. 1

85764 Oberschleissheim

Germany

Telephone: 011 49 1888 333 2156

<http://www.icnirp.de>

### **American National Standards Institute**

1819 L Street, N.W., 6th Floor

Washington, D.C. 20036

Telephone: (202) 293-8020

<http://www.ansi.org>

### **National Council on Radiation Protection and Measurements**

7910 Woodmont Avenue, Suite 800

Bethesda, MD 20814-3095

Telephone: (301) 657-2652

<http://www.ncrponline.org>

## **Engineering in Medicine and Biology Society, Committee on Man and Radiation (COMAR) of the Institute of Electrical and Electronics Engineers**

<http://ewh.ieee.org/soc/embs/comar/>

### **TIA Safety Information**

The following is the complete TIA Safety Information for wireless handheld phones.

#### **Consumer Information on SAR**

##### **(Specific Absorption Rate)**

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

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy. The exposure limit for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial

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margin of safety to give additional protection to the public and to account for any variations in measurements. 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 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.

The highest SAR value for this model phone when tested for use at the ear is 0.36 W/kg and when worn on the body, as described in this user's manual, is 0.42 W/kg. While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure. 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/ea/fccid/> after searching on FCC ID ZNFB450.

To find information that pertains to a particular model phone, this site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org/>

\* 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.

## **Exposure to Radio Frequency Signal**

Your wireless handheld portable phone is a low power radio transmitter and receiver. When ON, it receives and 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)

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

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

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

## **Antenna Care**

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

## **Tips on Efficient Operation**

For your phone to operate most efficiently:

Don't 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.

### **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 (6) 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;
- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

### **Hearing Aids**

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider (or call the customer service line to discuss alternatives).

### **Other Medical Devices**

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

### **Health Care Facilities**

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 use equipment that could be sensitive to external RF energy.

## **Vehicles**

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

## **Posted Facilities**

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

## **Aircraft**

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

## **Blasting Areas**

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

## **Potentially Explosive 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 Radio Frequency (RF) energy in the microwave range while being used. They also emit very low levels of RF when in idle 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 Radio Frequency (RF) energy 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 does 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 Radio Frequency (RF) energy 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 Radio Frequency (RF) energy 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 do not 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 ten 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 Radio Frequency (RF) energy.

The FDA has been a leading participant in the World Health Organization International Electro Magnetic 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 (RF) energy 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 phones 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 (RF) energy 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 Radio Frequency 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 Radio Frequency (RF) energy. 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 does 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 Radio Frequency (RF) energy, 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 (RF) energy from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure Electro Magnetic 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:

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.hpa.org.uk/radiation/>)

## Driving

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

- 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 or the law require it.

### HAC statement

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses.

However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids.

It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise.

Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility.

If you have questions about return or exchange policies, consult your service provider or phone retailer.

### FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices

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

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

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The ratings are not guarantees.

Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully.

Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

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

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. T4 is the better/higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use.

A sum of 6 is considered for best use.



In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with "normal usage" while using their hearing aid with the particular wireless phone. "Normal usage" in this context is defined as a signal quality that's acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark.

The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules.



The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

To enter that the Hearing Aid Compatibility rating for your phone is maintained, secondary transmitters such as Bluetooth components must be disabled during a call.

**For information about hearing aids and digital wireless phones**

**Wireless Phones and Hearing Aid Accessibility**

<http://www.accesswireless.org/>

**Gallaudet University, RERC**

<http://tap.gallaudet.edu/Voice/>

**FCC Hearing Aid Compatibility and Volume Control**

<http://www.fcc.gov/cgb/dro/hearing.html>

**The Hearing Aid Compatibility FCC Order**

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-168A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-168A1.pdf)

**Hearing Loss Association of America [HLAA]**

<http://hearingloss.org/content/telephones-and-mobile-devices>

# 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 TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.
- (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 as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.
- (4) The external housing and cosmetic parts shall 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 information to reasonably prove the date of purchase.
- (6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

## 2. WHAT THIS WARRANTY DOES NOT COVER:

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- (5) Products which have had the serial number removed or made illegible.
- (6) 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 non LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.
- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

### 3. WHAT LG WILL DO:

LG will, at its sole option, either repair, replace or refund the purchase price of any unit that is covered under this limited warranty. LG may choose at its option to use functionally equivalent re-conditioned, refurbished or new units or parts or any units. In addition, LG will not re-install or back-up any data, applications or software that you have added to your phone. It is therefore recommended that you back-up any such data or information prior to sending the unit to LG to avoid the permanent loss of such information.

### 4. STATE LAW RIGHTS:

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG 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 OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive 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.

### 5. HOW TO GET WARRANTY SERVICE:

To obtain warranty service, please call or fax to the following telephone numbers from anywhere in the continental United States:

**Tel. 1-800-793-8896**

Or visit <http://us.lgservice.com>. Correspondence may also be mailed to:

LG Electronics Service- Mobile Handsets, P.O. Box 240007, Huntsville, AL 35824

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

## 7.11 Warranty Laws

The following laws govern warranties that arise in retail sales of consumer goods:

- The California Song-Beverly Consumer Warranty Act [CC §§1790 et seq],
- The California Uniform Commercial Code, Division Two [Com C §§2101 et seq], and
- The federal Magnuson-Moss Warranty Federal Trade

Commission Improvement Act [15 USC §§2301 et seq; 16 CFR Parts 701- 703]. A typical Magnuson-Moss Act warranty is a written promise that the product is free of defects or a written promise to refund, repair, or replace defective goods. [See 15 USC §2301(6).] Remedies include damages for failing to honor a written warranty or service contract or for violating disclosure provisions. [See 15 USC §2310(d).] Except for some labeling and disclosure requirements, the federal Act does not preempt state law. [See 15 USC §2311.]

The Consumer Warranty Act does not affect the rights and obligations of parties under the state Uniform Commercial Code, except the provisions of the Act prevail over provisions of the Commercial Code when they conflict. [CC §1790.3.]

For purposes of small claims actions, this course will focus on rights and duties under the state laws.