



LG-H810



- All screen shots in this guide are simulated.
- Actual displays and the color of the phone may vary.
- Some of the contents in this manual may differ from your phone depending on the software version of the phone, OS version or your service provider, and are subject to change without prior notice.

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

LIMITED WARRANTY STATEMENT

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 Fax. 1-800-448-4026

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.

LIMITED WARRANTY STATEMENT

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.

Table of Contents

Table of Contents	7	Google Account Setup.....	39
Important Notice.....	9	Creating your Google account.....	39
Your Phone.....	12	Signing in to your Google account....	39
Getting Started.....	15	Connecting to Networks and	
Installing the SIM or USIM card	15	Devices.....	40
Charging the phone.....	17	Wi-Fi.....	40
Inserting a memory card	18	Bluetooth.....	41
Unlocking the screen.....	19	Wi-Fi Direct.....	42
Your Home screen	20	SmartShare	43
Touch screen tips	20	Transferring data between a PC	
Home screen	21	and your device	44
Customizing the Home screen	22	Calls	45
Returning to recently-used		Making a call.....	45
applications.....	24	Calling your contacts.....	45
Notifications panel.....	24	Answering and rejecting a call	45
On-screen keyboard	27	Making a second call	45
Special Features.....	29	Viewing your call logs.....	46
Gesture shot.....	29	Call settings	46
Gesture View.....	30	Contacts.....	47
Glance View	31	Searching for a contact.....	47
KnockON.....	31	Adding a new contact	47
Knock Code.....	32	Favorites contacts	47
Dual window	33	Creating a group.....	48
QSlide.....	36	Messaging	49
QuickRemote	37	Sending a message.....	49

Table of Contents

Conversation view.....	50	Chrome	73
Changing message settings.....	50	Settings.....	74
Email	51	Sound tab	77
Managing an email account	51	Display tab	79
Working with account folders.....	51	General tab.....	82
Composing and sending email.....	52	PC software (LG PC Suite)	90
Camera and Video	53	Software Update.....	93
Camera options on the viewfinder....	53	Phone Software Update.....	93
Using the advanced settings.....	54	LG Mobile Phone Software Update via Over-the-Air (OTA)	93
Taking a photo	54	Trademarks	94
Once you have taken a photo.....	55	Trademarks.....	94
Recording a video.....	55	DivX HD	94
After recording a video	56	Dolby Digital Plus.....	95
Gallery	59	Q&A	96
Multimedia.....	63	Accessories.....	97
Music.....	63	Troubleshooting	98
Utilities	66	For Your Safety	102
Clock.....	66	Important Information	102
Calculator	68	Before You Start.....	102
Calendar	68		
Voice Search	69		
Downloads	69		
LG SmartWorld.....	70		
Browsing the Web.....	71		
Browser	71		

Important Notice

Please read this before you start using your phone!

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

1. Phone memory

When there is less than 10MB of space available in your phone memory, your phone cannot receive new messages. You must check your phone memory and delete some data, such as applications or messages, to make more memory available.

To uninstall applications:

- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **General** tab > **Apps**.
- 2 Once all applications appear, scroll to and select the application you want to uninstall.
- 3 Tap **Uninstall**.

2. Optimizing battery life

Extend your battery's power by turning off features that you do not need to run constantly in the background. You can monitor how applications and system resources consume battery power.

Extending your phone's battery life:

- Turn off radio communications when you are not using. If you are not using Wi-Fi, Bluetooth or Location services (including GPS), turn them off.
- Reduce screen brightness and set a shorter screen timeout.
- Turn off automatic syncing for Gmail, Calendar, Contacts and other applications.

Important Notice

❗ NOTE:

- ▶ Some applications you download may consume battery power.
- ▶ While using downloaded applications, check the battery charge level.

3. Before installing an open source application and OS

❗ WARNING

- ▶ If you install and use an OS other than the one provided by the manufacturer it may cause your phone to malfunction. In addition, your phone will no longer be covered by the warranty.
- ▶ To protect your phone and personal data, only download applications from trusted sources, such as Play Store™. If there are improperly installed applications on your phone, the phone may not work normally or a serious error may occur. You must uninstall those applications and all associated data and settings from the phone.

4. Using the Hard Reset (Factory Reset)

If your phone needs to be restored to its original settings and condition, use a Hard Reset (Factory Reset).

- 1 Turn the power off.
- 2 Press and hold the **Power/Lock Button + Volume Down Button** on the back of the phone.
- 3 Release the **Power/Lock Button** only when the boot logo is displayed, then immediately press and hold the **Power/Lock Button** again.
- 4 Release all Buttons when the Factory hard reset screen is displayed.
- 5 Press the **Power/Lock Button** to continue, or press either of the **Volume Buttons** to cancel.

- 6 Press the **Volume Buttons** to highlight **YES** once more, then press the **Power/Lock Button** to confirm.

! WARNING

- ▶ If you perform a Hard Reset, all user applications, user data and DRM licenses will be deleted. Please remember to backup any important data before performing a Hard Reset.

5. Opening and switching applications

Multitasking is easy with Android; you can keep more than one application running at the same time. There is no need to quit an application before opening another. Use and switch between several open applications. Android manages each application, stopping and starting them as needed to make sure that idle applications don't consume resources unnecessarily.

- 1 Tap . App previews of recently used applications will be displayed.
- 2 Tap the application you want to access. This does not stop the previous app from running in the background. Make sure to tap  to back out of a window after using it.
 - To close an app from the recent apps list, swipe the app preview to the left or right. To clear all apps, tap **Clear all**.

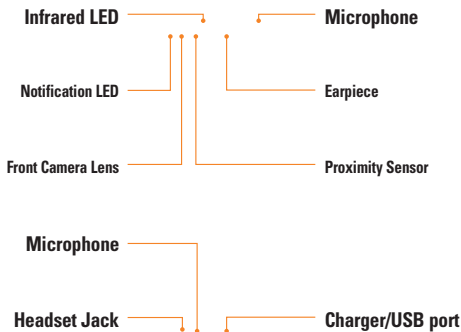
6. If the screen freezes

If the screen freezes or the phone does not respond when you try to operate it:

Press and hold the **Power/Lock Button** and **Volume Down Button** for about 10 seconds to reset your phone. To turn your phone off, press and hold the **Power/Lock Button** and the **Volume Down Button** for about 20 seconds. If it still does not work, please contact the service center.

Your Phone

Front view

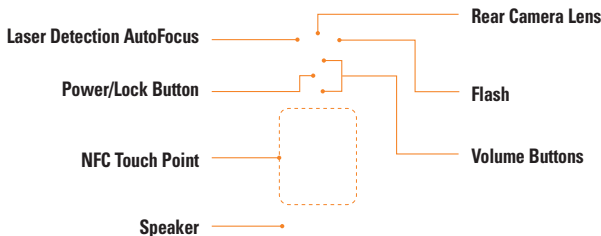


! NOTE : Proximity sensor

- ▶ When receiving and making calls, the proximity sensor automatically turns the backlight off and locks the touch screen by sensing when the phone is near your ear. This extends battery life and prevents you from unintentionally activating the touch screen during calls.

! Warning

- ▶ Placing a heavy object on the phone or sitting on it can damage the display and touch screen functions. Do not cover the proximity sensor with screen protectors or any other type of protective film. This could cause the sensor to malfunction.



Power/Lock Button	• Switch your phone on/off by pressing and holding this button • Short press to lock/unlock the screen
Volume Buttons	(Whilst screen is switched off) • Long Press Up to launch QuickMemo • Long Press Down to launch Camera

! Warning

- ▶ Be careful not to damage the NFC touch point on the phone, as this is part of the NFC antenna.

! NOTE

- ▶ The back cover of this product applies a “self-healing” technology, which self-repairs minor scratches in just a few minutes. Minor scratches are those caused by ordinary and normal use of the phone. Scratches caused by abrasive surface, misuse, including but not limited to intentional scratches, and damages caused by a fall or dropping the product, may not disappear. The “self-healing” results may vary depending on the extent of the damage as

Your Phone

well as other conditions. Any warranty on the “self-healing” is hereby expressly excluded.

► **NOTE: LDAF Sensor (Laser Detection AutoFocus Sensor)**

By detecting the distance with laser, when you recording with the rear camera lens, LDAF Sensor enables you to focus the long or close range more fast and accurately.

Getting Started

Installing the SIM or USIM card

Before you can start exploring your new phone, you need to set it up.

- 1** To remove the back cover, hold the phone firmly in one hand. With your other hand, lift off the back cover with your thumbnail as shown in the figure below.
- 2** Slide the SIM card into the lower slot for the SIM card as shown in the figure. Make sure the gold contact area on the card is facing downward.

! NOTE:

▶ Only the microSIM cards work with the device.

3 To replace the cover onto the device, align the back cover ❶ and press it down until it clicks into place ❷.

Charging the phone

Charge the battery before using it for first time. Use the charger to charge the battery.

WARNING

- ▶ Use only LG-approved chargers, batteries and cables. If you use unapproved chargers, batteries or cables, it may cause battery charging delay or pop up message regarding slow charging, Or this can cause the battery to explode or damage the device, which are not covered by the warranty.

The charger connector is at the bottom of the phone. Insert the charger and plug it into a power outlet.

NOTE:

- ▶ Do not open the back cover while your phone is charging.

Inserting a memory card

Your device supports up to a 2TB microSD card. Depending on the memory card manufacturer and type, some memory cards may not be compatible with your device.

⚠ **WARNING**

- ▶ Some memory cards may not be fully compatible with the device. Using an incompatible card may damage the device or the memory card, or corrupt the data stored in it.

⚠ **NOTE:**

- ▶ The device supports the FAT and the exFAT file systems for memory cards. When inserting a card formatted in a different file system, the device asks to reformat the memory card.
 - ▶ Frequent writing and erasing of data shortens the lifespan of memory cards.
- 1 Remove the back cover.
 - 2 Insert a memory card with the gold-coloured contacts facing downwards.

- 3 Replace the back cover.

Unlocking the screen

By default, your screen will lock after a period of inactivity, then turn off.

Unlocking the screen

- 1 Press the **Power/Lock Button** or double-tap on the screen.
- 2 Swipe the screen in any direction to unlock it.

! TIP! Smart Lock

- ▶ You can use **Smart Lock** to make unlocking your phone easier. You can set it to keep your phone unlocked when you have a trusted Bluetooth device connected to it, when it's in a familiar location like your home or work, or when it recognises your face.

▶ Setting up Smart Lock

- 1 From the Home screen, tap  > **Apps** tab > .
- 2 Tap **Display** tab > **Lock screen** > **Smart Lock**.
- 3 Before you add any trusted devices, trusted places, or trusted face, you need to set up a screen lock (pattern, PIN, or password).

Your Home screen

Touch screen tips

Here are some tips on how to navigate on your phone.

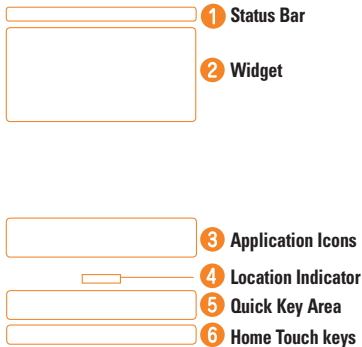
- **Tap or touch** – A single finger tap selects items, links, shortcuts and letters on the on-screen keyboard.
- **Touch and hold** – Touch and hold an item on the screen by tapping it and not lifting your finger until an action occurs.
- **Drag** – Touch and hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You can drag items on the Home screen to reposition them.
- **Swipe or slide** – To swipe or slide, quickly move your finger across the surface of the screen, without pausing when you first tap it (so you don't drag an item instead).
- **Double-tap** – Double-tap to zoom on a webpage or a map (if the feature is supported by the application).
- **Pinch-to-Zoom** – Use your index finger and thumb in a pinching or spreading motion to zoom in or out when using the browser or Maps, or when browsing pictures (if the feature is supported by the application).
- **Rotate the screen** – From many applications and menus, the screen orientation adjusts to the device's physical orientation.

! NOTE:

- ▶ Do not press too hard; the tap screen is sensitive enough to pick up a light, yet firm tap.
- ▶ Use the tip of your finger to tap the option you want. Be careful not to tap any other keys.

Home screen

The Home screen is the starting point for many and functions. It allows you to add items like app shortcuts and Google widgets to give you instant access to information and applications. This is the default canvas and accessible from any menu by tapping .



- 1** Shows phone's status information, including the time, signal strength, battery status and notification icons.
- 2** Widgets are self-contained applications that can be accessed through the Apps drawer or on the Home screen. Unlike a shortcut, a Widget can function as an on-screen application.
- 3** Tap an icon (application, folder, etc.) to open and use it.
- 4** Indicates which Home screen canvas you are currently viewing.

Your Home screen

- 5 Provides one-touch access to the function in any Home screen canvas.

 Back Key	Returns to the previous screen. Also closes pop-up items, such as menus, dialog boxes and the on-screen keyboard. Touch and hold it to access the Dual window.
6  Home Key	Return to the Home screen from any screen.
 Recent Apps Key	Displays recently used applications. If you touch and hold this key, it opens a menu of available options.

Extended Home screen

The operating system provides multiple Home screen canvases to provide more space for adding icons, widgets and more.

- Slide your finger left or right across the Home screen to access additional canvases.

Customizing the Home screen

You can customize your Home screen by adding apps and widgets and changing wallpapers.

Adding items on your Home screen

- 1 Touch and hold the empty part of the Home screen.
- 2 In the Add Mode menu, select the item you want to add. You then see this added item onto the Home screen canvas.
- 3 Drag it to the desired location and lift your finger.

! TIP!

- ▶ To add an application icon to the Home screen from the Apps menu, touch and hold the application you want to add.

Removing an item from the Home screen

- While on the Home screen, touch and hold the icon you want to remove, then drag it to  and release it.

Adding an app to the Quick Key area

- From the Apps screen or on the Home screen, touch and hold an application icon and drag it to the Quick Key area. Then release it in the desired location. Up to 6 apps can be added.

Removing an app from the Quick Key area

- Touch and hold the desired Quick Key, drag it to , and release it.

! NOTE:

- ▶ The **Apps Key**  cannot be removed.

Customizing app icons on the Home screen

- 1 Touch and hold an application icon until it is unlocked from its current position, then release it. The editing icon  will appear in the upper right corner of the application.
- 2 Tap the application icon again and select the desired icon design and size.
- 3 Tap **OK** to save the change.

Returning to recently-used applications

- 1 Tap . App previews of recently used applications will be displayed.
- 2 Tap an app preview to open the application. Or tap  to return to the previous screen.

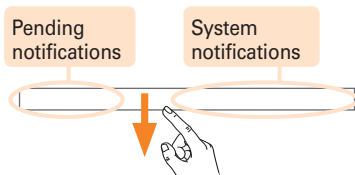
Notifications panel

Notifications alert you to the arrival of new messages, calendar events and alarms, as well as ongoing events, such as when you are using turn-by-turn navigation.

When a notification arrives, its icon appears at the top of the screen. Icons for pending notifications appear on the left, and system icons, such as Wi-Fi and battery strength are shown on the right.

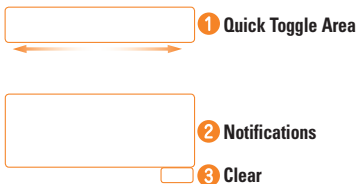
! NOTE:

- The available options may vary depending on the region or service provider.



Opening the Notifications panel

Swipe down from the Status bar to open the Notifications panel. To close the Notifications panel, touch and drag the screen toward the top of the screen.



- 1 Tap each quick toggle key to turn it on/off. Touch and hold the key to access the settings menu for the function. To see more toggle keys, swipe left or right. Tap  to remove, add or rearrange toggle keys.
- 2 Current notifications are listed, each with a brief description. Tap a notification to open the corresponding application that manages it.
- 3 Tap to clear all the notifications.

Your Home screen

Indicator icons on the Status Bar

Indicator icons appear on the Status bar at the top of the screen to report missed calls, new messages, calendar events, device status and more.



The icons displayed at the top of the screen provide information about the status of the device. The icons listed in the table below are some of the most common ones.

Icon	Description
	No SIM card inserted
	No network signal available
	Airplane mode is on
	Connected to a Wi-Fi network
	Wired headset connected
	Call in progress
	Missed call
	Bluetooth is on
	System warning

Icon	Description
	A media file is currently playing
	Silent mode is enabled
	Vibrate mode is on
	Battery fully charged
	Battery is charging
	Phone is connected to PC via USB cable
	Downloading data
	Uploading data
	GPS is on

	An alarm is set		Data is synchronizing
	New voicemail available		Choose input method
	New text or multimedia message		Media server content sharing is on
	NFC is on		Mobile hotspot is active

NOTE:

- The icon's location in the Status bar may differ according to the function or service.

On-screen keyboard

You can enter text using the on-screen keyboard. The on-screen keyboard appears on the screen when you tap an available text entry field.

Using the keypad and entering text

-  Tap once to capitalize the next letter you type. Tap twice for all caps.
-  Tap to access the keyboard's Settings menu.
-  Tap to enter a space.
-  Tap to create a new line.
-  Tap to delete the previous character.

Entering accented letters

When you select French or Spanish as the text entry language, you can enter special French or Spanish characters (e.g. "á").

For example, to input "á", touch and hold the "a" key until the pop-up appears and displays related special characters. Without lifting the finger, drag your finger to the desired special character.

Special Features

Gesture shot

The Gesture shot feature allows you to take a picture with a hand gesture using the front camera.

To take photo

There are two methods for using the Gesture shot feature.

- Raise your hand, with an open palm, until the front camera detects it and a box appears on the screen. Then close your hand into a fist to start the timer, allowing you time to get ready.
- Raise your hand, in a clenched fist, until the front camera detects it and a box appears on the screen. Then unclench your fist to start the timer, allowing you time to get ready.

OR

Gesture View

After taking a photo with the front camera lens, you can automatically check the captured photo with this gesture.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Take a picture with the front camera.
- 3 After taking the picture, bring the phone close to your face. The captured photo will be displayed.

Taking a picture

Quick preview

Returning front camera mode

NOTE:

- ▶ Depending on the speed and angle of the gesture, this feature may not work properly.
- ▶ When the angle is changed after Quick preview, it will go back to the camera mode. You should go to Gallery to view the picture again.

Glance View

When the phone screen is off, you can see the Status bar, time and date by dragging your finger down on the screen.



KnockON

You can wake up, or turn off, the screen as easily as double-tapping the screen.

While the screen is off, and idle, double-tap the center screen quickly to wake the screen. To turn the screen off, double-tap the Status bar in any screen (except on the camera viewfinder) or empty area on the Home screen.

! NOTE:

- ▶ When using KnockOn to wake the screen, make sure you do not cover the proximity sensor. Doing so will prevent the screen from turning on. This feature is designed to prevent the device turning on inadvertently in your pocket or storage location.

Knock Code

The Knock Code feature allows you to wake and unlock the screen with your own Knock Code pattern. When enabled, Knock Code divides the screen into 4 parts and uses your unique combination of taps to secure your device. You can disable this feature in the Lock screen settings.

! NOTE:

- ▶ If you enter an incorrect Knock Code combination 6 times, it will be necessary to use your Google account log in or backup PIN.
 - ▶ Use the fingertip instead of finger nail to tap the screen for turning it on or off.
 - ▶ When the Knock Code is not in enabled, you can use Knock On function by taping the screen.
- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **Display** tab > **Lock screen** > **Select screen lock** > **Knock Code**.
 - 2 Follow the on-screen steps to set your Knock Code.
 - 3 Tap Done when you have finished.

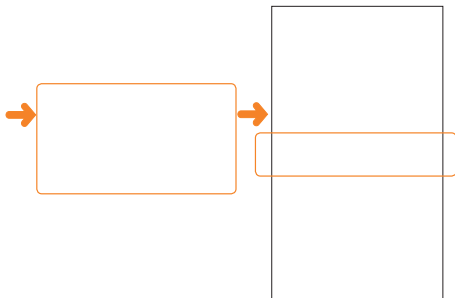
Unlocking the screen using the Knock Code

You can wake up and unlock the screen by tapping the Knock Code, set up in the previous section, when the screen is off.

Dual window

This feature allows you to multi-task by splitting up the screen into two, allowing you to use two compatible applications at the same time.

- 1 Touch and hold the  to split the screen.
- 2 Tap or drag the app icon for the corresponding application you wish to use.



-  : Tap to view the Dual window menu options, or drag to resize the split screens.
-  : Switch two screens.
-  : View the app list.
-  : Change the selected window to full screen.
-  : Close the currently selected app window.

Special Features

! NOTE:

- ▶ Dual window is enabled by default. You can enable or disable Dual window through the Settings menu.
 - 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **General** tab > **Dual window**.
 - 2 Slide the toggle key to **On** or **Off**.

QuickMemo+

The **QuickMemo+** feature allows you to create memos and capture screen shots.

You can use QuickMemo+ to easily and efficiently create memos during a call, with a saved picture or on the current phone screen.

- 1 Touch and drag the Status Bar down and tap .



- 2 Create a memo using the following options:

	Tap to undo the most recent action.
	Tap to redo the most recently deleted action.
	Tap to insert text into your memo.

	Tap to select the pen type and color.
	Tap to use the eraser to erase the pen marks on the memo.
	Tap to save the memo you've created.
	Tap to hide or display the toolbar.

! NOTE:

- ▶ Please use a fingertip while using the QuickMemo+ feature. Do not use your fingernail.
- 3 Tap  to save the current memo to the **QuickMemo+** or **Gallery**.

Discard QuickMemos

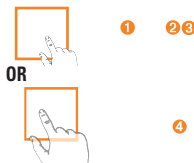
- Tap .

View the Saved Memo

From the Home screen tap  > **Gallery**  and select the **QuickMemo+** album or tap **QuickMemo+**  and select the desired memo.

QSlide

From any screen, use the Notification panel to easily access and use the Notepad, Calendar, Calculator, and more with QSlide.



1		Tap to expand the window to full window size.
2		Tap to adjust the window's transparency.
3		Tap to close the QSlide window.
4		Drag to adjust the size.

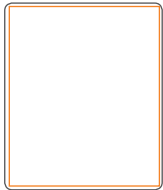
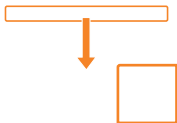
- 1 Touch and slide the status bar downward > tap **QSlide** to view the available QSlide apps. Also, while using applications that support QSlide, tap The function is displayed as a small window on your screen.
- 2 You can use and tap the screen under the **QSlide** windows when the transparency bar is not full

! NOTE:

- QSlide can support up to one window at the same time.

QuickRemote

QuickRemote turns your phone into a Universal Remote for your home TV, set-top box and audio system, and more.



Set up

- 1 Touch and slide the Status bar downward and tap  > **ADD REMOTE.**

OR

Tap  >  > **Apps** tab (if necessary) >  > tap .

- 2 Select the type and brand of the device, then follow the on-screen instructions to configure the device.

Access your QuickRemote

- 3 Once you have completed the initial set up, you can easily access the QuickRemote from the Notification panel. Open the Notification panel and use the QuickRemote functions.

Special Features

! NOTE:

- ▶ The QuickRemote operates the same way as an ordinary remote control infrared (IR) signals. Be careful not to cover the infrared sensor at the top of the phone when you use the QuickRemote function. This function may not be supported depending on the model, the manufacturer or service company.

Google Account Setup

The first time you open a Google application on your phone, you will be required to sign in with your existing Google account. If you do not have a Google account, you will be prompted to create one.

Creating your Google account

- 1 From the Home screen, tap  to open the applications screen.
- 2 Tap  > **Accounts & sync** > **Add account** > **Google** > **Create a New Account** to start the Google setup wizard.
- 3 Enter your first and last name, then tap **Next**.
- 4 Enter a username and tap **Next**. Your phone then communicates with Google servers and checks for username availability.
- 5 Enter your password and tap **Next**.
- 6 Follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

Signing in to your Google account

- 7 On the Google Accounts sign-in screen, enter your e-mail address and tap **Next**.
- 8 Enter your password and tap **Next**.
- 9 Once you have set up your Google account on your phone, it will automatically synchronize with your Google account on the web (if a data connection is available).

After signing in, you can use Gmail, and Play Store; back up your settings to Google servers; and take advantage of other Google services on your phone.

Connecting to Networks and Devices

Wi-Fi

You can use high-speed Internet access while within the coverage of the wireless access point (AP).

Connecting to Wi-Fi networks

- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **Networks** tab > **Wi-Fi**.
- 2 Set **Wi-Fi** to **ON** to turn Wi-Fi on and start scanning for available Wi-Fi networks.
- 3 Tap a network to connect to it.
 - If the network is secured with a lock icon, you will need to enter a security key or password.

NOTE:

- ▶ The Status bar displays icons that indicate Wi-Fi status.
- ▶ If you are out of the Wi-Fi zone or have set Wi-Fi to **OFF**, the device may automatically connect to the Web using mobile data, which may incur data charges.

TIP! How to obtain the phone's MAC address

- ▶ From the Home screen, tap  > **Apps** tab (if necessary) >  > **Networks** tab > **Wi-Fi** >  > **Advanced Wi-Fi** > **MAC address**.

Bluetooth

You can use Bluetooth to connect with headsets, sound systems, or even to exchange data between near devices.

! NOTE:

- ▶ LG is not responsible for the loss, interception or misuse of data sent or received via the Bluetooth feature.
- ▶ Always ensure that you share and receive data with devices that are trusted and properly secured.
- ▶ If there are obstacles between the devices, the operating distance may be reduced.
- ▶ Some devices, especially those that are not tested or approved by Bluetooth SIG, may be incompatible with your device.

Pairing your phone with another Bluetooth device

- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **Networks** tab > **Bluetooth**.
- 2 Set **Bluetooth** to **ON**.
- 3 Tap **Search for devices** to view the devices in the Bluetooth Range.
- 4 Choose the device you want to pair with from the list and follow any subsequent instructions to complete pairing. Once the pairing is successful, your phone connects to the other device.

! NOTE:

- ▶ Some devices, especially headsets or hands-free car kits, may have a default Bluetooth PIN, such as 0000.

Connecting to Networks and Devices

Sending data via Bluetooth

- 1 Using an application that supports sharing, locate the data, or file, that you want to share.
- 2 Select the **Share** option.
- 3 Select **Bluetooth**.
- 4 Select the paired Bluetooth device (or pair with a new device).

NOTE:

- The method for selecting an option may vary by data type.

Receiving data via Bluetooth

- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **Networks** tab > **Bluetooth**.
- 2 Set **Bluetooth** to **ON** to turn it on.
- 3 You will receive a request to accept a pairing attempt from the sending device. Be sure to select **Accept**.

Wi-Fi Direct

Wi-Fi Direct provides a direct connection between Wi-Fi enabled devices without requiring an access point.

Turning on Wi-Fi Direct

- 1 From the Home screen, tap  > **Apps** tab (if necessary) >  > **Networks** tab > **Wi-Fi**.
- 2 Tap  > **Advanced Wi-Fi** > **Wi-Fi Direct**.

NOTE:

- ▶ When in this menu, your device is visible to other visible Wi-Fi Direct devices nearby.

SmartShare

SmartShare allows you to receive multimedia content via LG phone and tablets.

- 1 While viewing the content you want to share, tap  or  > **SmartShare**.
- 2 Tap **Play** or **Beam** in the pop-up that is displayed.
 - **Play:** You can stream your content via a TV, Bluetooth speaker, etc.
 - **Beam:** You can send your content to Bluetooth devices or via SmartShare Beam* to supported LG phones or tablets.
*SmartShare Beam quickly transfers multimedia contents through Wi-Fi Direct.
- 3 Tap the device you want to share from the list.
 - If the device is not displayed on the list, make sure that Wi-Fi, Wi-Fi Direct, or Bluetooth is turned on. Then tap **Rescan**.
- 4 Tap **Send** to share the files.

Enjoying content from nearby devices on your phone

- 1 To connect nearby devices to your phone, tap the **Nearby devices** option on the **Gallery** and **Music** apps.
 - Make sure that your phone and nearby devices are connected to the same Wi-Fi network and that the DLNA service on the nearby device is turned on.
- 2 Tap the device you wish to connect to.
If the device is not listed, tap **Search nearby devices**.
- 3 After a connection is established, you can enjoy the content on your phone.

Transferring data between a PC and your device

You can copy or move data between a PC and the device.

Transferring data

- 1 Connect your device to a PC using the USB cable that came with your phone.
- 2 Open the Notifications panel and select **Media device (MTP)**.
- 3 A window will pop-up on your PC, allowing you to transfer the desired data.

! NOTE:

- ▶ The LG Android Platform Driver is required to be installed on your PC to be able to detect the phone.
- ▶ Check the requirements for using **Media device (MTP)**.

Items	Requirement
OS	Microsoft Windows XP SP3, Vista or higher
Window Media Player version	Windows Media Player 10 or higher

Calls

Making a call

- 1 From the Home screen, tap  to open the dialer.
- 2 Enter the number using the dialer. To delete a digit, tap .
- 3 After entering the desired number, tap  to place the call.
- 4 To end the call, tap .

❗ TIP!

- To enter "+" to make international calls, touch and hold .

Calling your contacts

- 1 From the Home screen, tap  to open your contacts.
- 2 Scroll through the contact list. You can also enter the contact's name in the Search field or scroll along the alphabet letters on the right edge of the screen.
- 3 To place the call, tap  next to the contact you want to call.

Answering and rejecting a call

When you receive a call, swipe  in any direction to answer the call.

Swipe  in any direction to decline the call.

Making a second call

- 1 During your first call, tap  > **Add call**.
- 2 Enter the number and tap  to place the call.

Calls

- 3 Both calls are displayed on the call screen. Your initial call is locked and put on hold.
- 4 To toggle between numbers, tap the number displayed on the screen. You can also tap  to start a conference call.
- 5 To end all calls, tap **End**.

! NOTE:

- ▶ You are charged for each call you make.

Viewing your call logs

From the Home screen, tap  and select **Call logs** tab.
A list of all dialed, received and missed calls is displayed.

! TIP!

- ▶ Tap any call log entry to view the date, time and duration of the call.
- ▶ Tap , then tap **Delete all** to delete all of the recorded items.

Call settings

You can configure phone call settings, such as call forwarding, as well as other special features offered by your carrier.

- 1 From the Home screen, tap  to open the dialer.
- 2 Tap  to display the available options.
- 3 Tap **Call settings** and configure the desired options.

Contacts

Add contacts to your phone and synchronize them with the contacts in your Google account or other accounts that support contact syncing.

Searching for a contact

- 1 From the Home screen, tap  to open your contacts.
- 2 Tap **Search contacts** and enter the contact name using the keyboard. You can also scroll along the alphabet letters on the right edge of the screen.

Adding a new contact

- 1 From the Home screen, tap  and enter the new contact's number.
- 2 Tap  > **Add to Contacts** > **New contact**.
- 3 If you want to add a picture to the new contact, tap the image icon. Choose **Take photo** or **Select from Gallery**.
- 4 Enter the desired information for the contact.
- 5 Tap **Save**.

Favorites contacts

You can classify frequently called contacts as favorites.

Adding a contact to your favorites

- 1 From the Home screen, tap  to open your contacts.
- 2 Tap a contact to view its details.
- 3 Tap the star at the top right corner of the screen. The star turns yellow.

Removing a contact from your favorites list

- 1 From the Home screen, tap  to open your contacts.
- 2 Tap the **Favorites** tab and choose a contact to view its details.
- 3 Tap the yellow star at the top right corner of the screen. The star turns grey color and the contact is removed from your favorites.

Creating a group

- 1 From the Home screen, tap  to open your contacts.
- 2 Tap **Groups** >  > **New group**.
- 3 Enter a name for the new group. You can also set a distinct ringtone for the group.
- 4 Tap **Save** to save the group.

NOTE:

- ▶ If you delete a group, the contacts assigned to that group are not lost. They remain in your contact list.

Messaging

Your phone combines text and multimedia messages into one intuitive, easy-to-use menu.

Sending a message

- 1 From the Home screen, tap  and tap  to create a new message.
- 2 Enter a contact name or contact number into the **To** field. As you enter the contact name, matching contacts appear. You can tap a suggested recipient and add more than one contact.

! NOTE:

- ▶ You may be charged for each text message you send. Please consult with your service provider.
- 3 Tap the **Enter message** field and begin composing your message.
- 4 Tap  to open the messaging options.

! TIP!

- ▶ You can tap  to attach a file that you want to share.
- 5 Tap **Send** to send your message.

! TIP!

- ▶ The 160-character limit may vary from country to country, depending on the language and how the text message is coded.
- ▶ If an image, video or audio file is added to a text message, it is automatically converted into a multimedia message and you may be charged accordingly.

Conversation view

Text and multimedia messages exchanged with another party are displayed in chronological order so that you can conveniently see and find your conversations.

Changing message settings

Your phone's messaging settings are predefined to allow you to send messages immediately. You can change the settings based on your preferences.

- Open the **Messaging** app and tap  > **Settings**.

Email

You can use the Email application to read emails from services like Gmail. The Email application supports the following account types: POP3, IMAP and Exchange.

Your service provider or system administrator can provide you with the account settings you need.

Managing an email account

The first time you open the Email application, a set-up wizard opens to help you to set up an email account.

Adding another email account:

- Open the **Email** app and tap  > **Settings** >  **Add account**.

Changing an email account's settings:

- Open the **Email** app and tap  > **Settings** > **General settings**.

Deleting an email account:

- Open the **Email** app and tap  > **Settings** >  > **Remove account** > Select the account you want to delete > **Remove** > **Yes**.

Working with account folders

To access your email account's folders, open the **Email** app and tap **Folders**.

Each account has an Inbox, Outbox, Sent and Drafts folder. Depending on the features supported by your account's service provider, you may have additional folders.

Composing and sending email

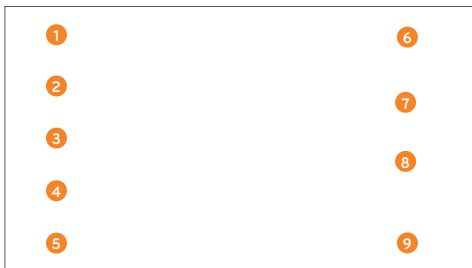
Composing and sending a message

- 1 While in the **Email** application, tap  to create a new email.
- 2 Enter an address for the message's intended recipient. As you enter text, matching addresses will be proposed from your Contacts. Separate multiple addresses using semicolons.
- 3 Tap  to add a Cc/Bcc and tap  to attach files, if required.
- 4 Enter the email's text.
- 5 Tap  to send the email.

Camera and Video

To open the Camera application, from the Home screen, tap  > **Apps** tab (if necessary) > .

Camera options on the viewfinder



- 1 **Hide/Display Options** – Tap to hide/display the camera options on the viewfinder.
- 2 **Flash** – Allows you to manage the camera's flash. Choose from **Off** , **On** , **Auto** .
- 3 **Swap camera** – Tap to swap between the rear camera and the front camera.
- 4 **Shot mode** – Allows you to select the shot mode for the picture. Choose from **Auto**, **Panorama** or **Dual**.
- 5 **Settings** – Tap to adjust the camera and video settings.
- 6 **Gallery** – Tap to access your Gallery.
- 7 **Record** – Tap to start recording a video.
- 8 **Capture** – Tap to take a photo.
- 9 **Back key** – Tap to close the selected menu or exit the Camera app.

Using the advanced settings

In the camera viewfinder, tap  to access the camera settings below.

	Combines photos taken at multiple exposures into one optimal photo to get a better photo in difficult lighting situations.
	Selects the photo and video resolution.
	Allows you to say a voice command to take pictures. You can say LG, Cheese, Smile, etc.
	Sets a delay after the capture key is pressed. This is ideal if you want to be in the photo or video.
	Displays grid lines to help you align your pictures and videos.
	Opens the Help guide to show how to use a function.

Taking a photo

- 1 Open the **Camera** application and point the lens toward the subject you want to photograph.
- 2 Focus indicators will appear in the center of the viewfinder screen. You can also tap anywhere on the screen to focus on that spot.
- 3 When the focus indicators turn blue, the camera has focused on your subject.
- 4 Tap  to capture the photo.

Once you have taken a photo

Tap the image thumbnail on the screen to view the last photo you took. The following options are available.

	Tap to edit the photo.
	Tap to take another photo immediately.
	Tap to send your photo to others or share it in via any available social network services.
	Tap to delete the photo.
	Tap to access additional options.
	Tap to add the photo to your favorites.

Recording a video

- 1 Open the **Camera** application and point the lens toward the subject you want to capture in your video.
- 2 Tap  once to start recording.

NOTE:

- ▶ The timer will be displayed on the screen.
- 3 Tap  to stop recording.

Camera and Video

! TIP!

- ▶  – Tap to capture a screen shot while recording a video.
- ▶  – Tap to pause the recording.

After recording a video

Tap the video thumbnail on the screen to view the last video you recorded. The following options are available.

	Tap to record another video immediately.
	Tap to send your video to others or share it via any available social network services.
	Tap to delete the video.
	Tap to access additional options.

Multi-point Auto Focus

When you take a picture, the Multi-point Auto Focus (AF) function operates automatically and allows you to see a clear image.

Burst shot

Allows you to take multiple shots quickly. Touch and hold .

Panorama mode

Allows you to take a panoramic picture.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Tap **MODE** > **Panorama**.
- 3 Tap  to start taking the panoramic picture.
- 4 Pan your phone slowly in one direction.
- 5 Make sure that the focus area aligns with the blue guideline while taking the photo.
- 6 Tap  to stop taking the panoramic picture.

Dual

The Dual feature allows you to take a picture or record video with the front and rear cameras at the same time.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Tap **MODE** > .

! NOTE:

▶ Drag the small screen to move it to your desired location. Touch and hold the small screen to resize it. Tap on the small screen to alternate between the two cameras.

3 Tap  to stop dual recording.

8X Zooming

When using the rear camera lens, you can zoom in or out to 8x.

! NOTE:

▶ Use a steady hand. This feature does not work with some functions. Objects may be overlapped when taking a picture of fast-moving subjects.

Live Zoom

Live Zoom allows you to zoom in or out on a portion of a video that is being played to make the desired section appear larger or smaller.

When viewing a video, use your index finger and thumb in a pinching or spreading motion to zoom in or out.



! NOTE:

- ▶ Do not press too hard; the touch screen is sensitive enough to pick up a light, but firm touch.

Dual Play

Dual Play (wired or wireless connection to two displays) can be run on a different screen.

! NOTE:

- ▶ Connect two devices using a wired (Slimport-HDMI) cable or wirelessly (Miracast). The connectable device can be a TV or a monitor supported by an HDMI cable or Miracast. The Gallery and Video apps are supported on Dual Play. Tap  once when two displays are a different status (i.e. the monitor is playing a video and your phone's video app is displaying an empty screen), then Dual Play will start. Not all videos are supported by Dual Play. Dual Play operates at 1280X720 or higher display resolution.

Gallery

The Gallery allows you to view and manage all of your pictures and videos.

- From the Home screen, tap  > **Apps** tab (if necessary) > .

! NOTE:

- ▶ Depending on the software installed, some file formats may not be supported.
- ▶ Some files may not play properly due to their encoding.

Viewing pictures

The Gallery displays your pictures in folders. When an application, such as Email, saves a picture, the download folder is automatically created to contain the picture. Likewise, capturing a screenshot automatically creates the Screenshots folder.

Pictures are displayed in a folder by the date they were created. Select a picture to view it full screen. Scroll left or right to view the next or previous image.

Zooming in and out

Use one of the following methods to zoom in on an image:

- Double-tap anywhere to zoom in.
- Spread two fingers apart on any place in the picture zoom in. Pinch in or double-tap the image to zoom out.

Video options

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Select the video you want to watch.
The following options are available.



1		Touch to pause/resume video playback.
2		Touch to fast-forward 10 seconds.
3		Touch to rewind 10 seconds.
4		Touch to adjust the video volume.
5		Touch to lock/unlock the screen.
6		Touch to use QSlide for the Videos app.
7		Tap to share your video using the SmartShare function.
8		Tap to access additional options.

To change the volume while watching a video, press the Volume Up/Down Buttons on the back of the phone.

Editing photos

While viewing a photo, tap .

Deleting photos/videos

Use one of the following methods:

- While in a folder, tap , select the photos/videos you want to delete. Then tap **Delete**.
- While viewing a photo, tap .

Setting wallpaper

While viewing a photo, tap  > **Set image as** to set the image as wallpaper or assign it to a contact.

NOTE:

- ▶ Depending on the software installed, some file formats may not be supported.
- ▶ If the file size exceeds the available memory, an error can occur when you open files.

Music

Your phone has a music player that lets you play all your favorite tracks. To access the music player, from the Home screen, tap  > **Apps** tab (if necessary) > .

Playing a song

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Tap the **Songs** tab.
- 3 Select the song you want to play.
- 4 The following options are available.



Multimedia

1		Tap to pause playback.
		Tap to resume playback.
2		Tap to skip to the next track in the album, playlist or shuffle list. Touch and hold to fast-forward.
3		Tap to restart the current track or skip to the previous track in the album, playlist or shuffle list. Touch and hold to rewind.
4		Tap to adjust the volume.
5		Tap to set audio effects.
6		Tap to play the current playlist in shuffle mode (tracks are played in random order).
7		Tap to toggle through repeat all songs, repeat current song and repeat off.
8		Tap to share your music using the SmartShare function.
9		Tap to add the song to your favorites.
10		Tap to open the current playlist.
11		Tap to access additional options.

To change the volume while listening to music, press the Volume Up/Down Buttons on the back side of the phone.

! NOTE:

- ▶ Depending on the software installed, some file formats may not be supported.
- ▶ If the file size exceeds the available memory, an error can occur when you open files.
- ▶ Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a license to reproduce or copy music. In some countries, national laws prohibit private copying of copyrighted material. Before downloading or copying the file, check the national laws of the relevant country concerning the use of such material.

Utilities

Clock

Use the Clock app to access the Alarms, Timer, World clock and Stopwatch functions. Access these functions by tapping the tabs across the top of the screen or swiping horizontally across the screen.

To access the Clock app, from the Home screen, tap  > **Apps** tab (if necessary) > .

Alarms

The Alarms tab allows you to set alarms.

- 1 Open the **Clock** app, then select the **Alarm** tab.
- 2 Tap  to add a new alarm.
- 3 Adjust the settings as necessary and tap **Save**.

NOTE:

- ▶ You can also tap an existing alarm to edit it.

Timer

The Timer can alert you with an audible signal when a set amount of time has passed.

- 1 Open the **Clock** app, then select the **Timer** tab.
- 2 Set the desired time on the timer.
- 3 Tap **Start** to start the timer.
- 4 Tap **Stop** to stop the timer.

World clock

The World clock allows you to easily check the current time in other cities around the world.

- 1 Open the **Clock** app, then select the **World clock** tab.
- 2 Tap  and select the desired city.

Stopwatch

The Stopwatch feature allows you to use your phone as a stopwatch.

- 1 Open the **Clock** app, then select the **Stopwatch** tab.
- 2 Tap the **Start** button to initiate the stopwatch.

! NOTE:

- ▶ Tap the **Lap** button to record lap times.
- 3 Tap the **Stop** button to stop the stopwatch.

! NOTE:

- ▶ To reset the stopwatch, tap the **Reset** button. You can also tap the Resume button to **resume** the stopwatch.

Calculator

The Calculator app allows you to perform mathematical calculations using a standard calculator or a scientific calculator.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Tap the number keys to enter numbers.
- 3 For simple calculations, tap the function you want to perform (, ,  or ) followed by .
- 4 For more complex calculations, tap  > **Scientific calculator** and select the desired function.

! NOTE:

- To check the history of calculations, tap .

Calendar

The Calendar app allows you to track your schedule of events.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > .
- 2 Tap the date you want to add an event to. Then tap .
- 3 Enter the event details and tap **Save** to save the event.

Voice Search

Use this application to search the web using your voice.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Google** folder  > .
- 2 Say a keyword or phrase when **Speak now** appears on the screen. Select one of the suggested keywords that appear.

! NOTE:

- ▶ This application may not be available depending on the region or service provider.

Downloads

Use this application to see what files have been downloaded through your applications.

- From the Home screen, tap  > **Apps** tab (if necessary) > .

! NOTE:

- ▶ This application may not be available depending on the region or service provider.

LG SmartWorld

LG SmartWorld offers an assortment of exciting content – fonts, themes, games, applications.

How to Get to LG SmartWorld from Your Phone

- 1 Tap  >  > **Apps** tab (if necessary) > **LG SmartWorld**.
- 2 Tap **Sign in** and enter your user name and password. If you have not signed up yet, tap **Register** to create an account.
- 3 Browse and download the content you want.

! NOTE:

- ▶ You may incur data fee charges when using your mobile network to access LG SmartWorld.
- ▶ LG SmartWorld may not be available for all carriers or in all countries.
- ▶ **What if there is no LG SmartWorld  icon?**
 - 1 Using a mobile Web browser on your device, access LG SmartWorld (www.lgworld.com) and select your country.
 - 2 Download the LG SmartWorld App.
 - 3 Run and install the downloaded file.
 - 4 Access LG SmartWorld by tapping the  icon.
- ▶ **Special benefits available for LG SmartWorld**
 - Personalize your device with home themes, keyboard themes, and fonts.
 - Enjoy special promotions only offered on LG SmartWorld.
 - Note that LG SmartWorld is only available for certain devices. Please check the www.lgworld.com for more information.

Browsing the Web

Browser

Use this application to browse the Internet. The Browser gives you a fast, full-color world of games, music, news, sports, entertainment and much more, right on your mobile phone.

! NOTE:

- ▶ Additional charges apply when connecting to these services and downloading content. Check data charges with your network provider.

- Tap  >  > **Apps** tab (if necessary) > .

Using the Browser toolbar

Scroll towards the top of the webpage to access the browser toolbar.

	Tap to go back one page.
	Tap to go forward one page.
	Tap to go to the Home page.
	Tap to open a new window.
	Tap to access your bookmarks.

Viewing webpages

Tap the address field, enter the web address and tap **Go** on the keyboard.

Browsing the Web

Opening a page

To go to a new page, tap  > .

To go to another webpage, tap , scroll up or down, and tap the page to select it.

Searching the web by voice

In the browser, tap the address field and then tap . When prompted, say a keyword and select one of the suggested keywords that appear.

! NOTE:

► This feature may not be available depending on the region or service provider.

Bookmarks

To bookmark the current webpage, tap  > **Add to bookmarks** > **OK**.

To open a bookmarked webpage, tap  and select the desired bookmark.

History

Tap  > **History** to open a list of recently visited webpages. To clear all of your history, tap  > **Yes**.

Using QSlide with the Browser

Use this feature to multi-task while browsing the internet.

While viewing content, such as contacts or notes that include web addresses, select a web address and then tap Popup Browser to open the pop-up browser. Touch and drag the QSlide window to move it to another location.

To view the browser in full screen, tap .

To close the browser, tap .

Chrome

Use Chrome to search for information and browse webpages.

- From the Home screen, tap  > **Apps** tab (if necessary) > .

! NOTE:

- ▶ This application may not be available, depending on your region and service provider.

Viewing webpages

In the Chrome browser, tap the address field, and then enter a web address or search criteria.

Opening a page

To open a new page, tap  > **New tab**.

To go to another webpage, tap , and tap the page to select it.

Settings

This section provides an overview of items you can change using your phone's System Settings menus.

Accessing the Settings menu:

- From the Home screen, touch and hold  > **All settings**.
- or -
- From the Home screen, tap  > **Apps** tab (if necessary) > .

Networks tab

Airplane mode

Airplane Mode (flight mode) allows you to use many of your phone's features, such as games, and music, when you are in an area where making or receiving calls or data use is prohibited. When you set your phone to Airplane Mode, it cannot send or receive any calls or access online data.

Wi-Fi

Allows you to manage your Wi-Fi connections and connect to available Wi-Fi networks.

Bluetooth

Allows you to manage your the Bluetooth wireless feature.

Data Manager

Displays the data usage and allows you to set a personalized mobile data usage limit.

Call

This menu allows you to configure various call settings.

- **Voicemail** – Allows you to select your carrier's voicemail service.

- **Fixed dialing numbers** – Allows you to manage and compile a list of numbers that can be called from your phone. You need your PIN2, which is available from your operator. If activated, only numbers in the fixed dial list can be called from your phone.
- **Caller ID** – Allows you to choose how to display your number in outgoing calls.
- **Incoming voice call pop-up** – Displays a pop-up for an incoming call when an app is in use.
- **Call reject** – Allows you to set the call decline function.
- **Decline with message** – When you want to decline a call, you can send a quick message using this function. This is useful if you need to decline a call during a meeting.
- **Auto answer** – Sets the time before a connected hands-free device automatically answers an incoming call.
- **Connection vibration** – Vibrates your phone when the other party answers the call.
- **TTY mode** – Allows you to activate TTY mode.
- **Hearing aids** – Allows you to turn on hearing aid compatibility.
- **Noise suppression** – Suppresses background noise on your device during a call.
- **Voice clarity** – Enhances voice quality in noisy environments so you can hear more clearly.
- **Power key ends call** – Allows you to use the Power key to end calls.
- **Call duration** – Allows you to view the call duration for various types of calls.
- **Sound settings** – Allows you to control the sounds on the phone.
- **Additional settings** – Allows you to change the following settings.

Share & connect

- **NFC** – Your phone is an NFC-enabled cell mobile phone. NFC (Near Field Communication) is a wireless connectivity technology that enables two-way communication between electronic devices. It operates over a distance of a few centimeters. You can share your content with an NFC tag or another NFC support device by simply tapping it with your device. If you tap an NFC tag with your device, it displays the tag content on your device.

Settings

- **Android Beam** – When this feature is turned on, you can transfer app content to another NFC-capable device by holding the devices close together. Just bring the device together (typically back to back) and then tap your screen. The app determines what gets beamed.
- **SmartShare Beam** – Allows you to receive multimedia content via LG phones and tablets.
- **Media server** – Allows you to share the phone's display and sound on your TV.
- **Miracast** – Allows you to wirelessly mirror the phone screen and sound onto a Miracast dongle or TV.
- **LG PC Suite** – Connect LG PC Suite with your phone to easily manage multimedia content and apps.

Tethering & networks

- **USB tethering** – Allows you to share the internet connection with your computer via a USB cable.
- **Mobile hotspot** – Allows you to create a hotspot and share your connection. Please consult **"Sharing your phone's data connection"** for more information.
- **Bluetooth tethering** – Allows you to connect to other devices via Bluetooth.
- **Help** – Displays Help information about USB tethering, Mobile hotspot, and Bluetooth tethering.
- **Mobile networks** – This menu allows you to configure various mobile network settings.
- **VPN** – From your phone, you can add, set up, and manage virtual private networks (VPNs) that allow you to connect and access resources inside a secured local network, such as your corporate network.

! NOTE:

- You must set a screen lock before you can use VPN.

- **Emergency alerts** - If emergency alerts are issued, those alerts will appear on this screen.

Sound tab

Sound profile

Allows you to set your phone's sound profile. Choose from **Sound**, **Vibrate only** or **Do not disturb**.

Volume

Adjust the phone's volume settings to suit your needs and environment.

Vibration strength

Allows you to set the vibration strength for calls, notifications and touch feedback.

Ringtone

Allows you to set the ringtones for calls. You can also add a ringtone by tapping  in the upper-right corner of the screen.

Notification sound

Allows you to set the notification sound. You can also add a notification sound by tapping  in the upper-right corner of the screen.

Sound with vibration

Checkmark to set the phone to vibrate in addition to the ringtone when you receive calls.

Vibration type

Allows you to choose the type of vibration.

< NOTIFICATIONS >

Do not disturb

Allows you to set a schedule when to prevent interruptions from notifications. You can set to allow certain features to interrupt when Priority only is set.

Lock screen

Allows you to choose if you want to show or hide notifications on the lock screen.

Apps

Allows you to prevent apps from displaying notifications or set apps to show notifications with priority when Do not disturb is set to Priority only.

Vibrate on tap

Checkmark to vibrate when tapping the Home touch buttons and during other UI interactions.

Sound effects

Tap to set the dial pad touch tones, touch sounds and screen lock sound.

- **Dialpad touch sounds** – Checkmark to play tones while using the dial pad.
- **Touch sounds** – Checkmark to play a sound when making a screen selections.
- **Screen lock sound** – Checkmark to play a sound when locking and unlocking the screen.

Message/call voice notifications

Tap  toggle it On or Off. On allows your device to read out incoming calls and message events automatically.

Display tab

Home screen

- **Select Home** – Set **Home** or **EasyHome** as the default home.
- **LG Health** – Allow you to set an additional Home screen showing health info.
- **Theme** – Sets the screen theme for your device. You can download new themes from **LG SmartWorld**.
- **Wallpaper** – Allows you to set the desired wallpaper for your Home screen.
- **Screen swipe effect** – Choose the desired type of effect to display when you swipe from one Home screen canvas to the next.
- **Allow Home screen looping** – Displays the first screen after the last screen when scrolling the Home screen.
- **Home backup & restore** – You can backup and restore app/widget layouts and the Home screen wallpaper.

Lock screen

- **Select screen lock** – Allows you to set the wallpaper for your Home screen. Opens a set of screens that guide you through drawing a screen unlock pattern.
If you enabled a Pattern lock type when you turn on your phone or wake up the screen, you are asked to draw your unlock pattern to unlock the screen.
- **Smart Lock** – Sets to keep your phone unlocked when you have a trusted Bluetooth device connected to it, when it's in a familiar location like your home or work, or when it recognizes your face.
- **Screen swipe effect** – Sets the screen swipe effect options.

Settings

! NOTE:

- ▶ This setting name may be Pattern effect if the Screen lock is set to Pattern.
- **Wallpaper** – Allows you to set your Lock screen wallpaper.
 - **Shortcuts** – Allows you to choose the shortcuts available on the lock screen.
 - **Weather animation** – Checkmark to show weather animation on the lock screen for the current location.
 - **Contact info for lost phone** – Allows you to display the owner information on the lock screen in case the phone is lost.
 - **Lock timer** – Sets the amount of time before the screen automatically locks after the screen has timed out.
 - **Power button instantly locks** – Checkmark to instantly lock the screen when the Power/Lock Button is pressed. This setting overrides the Security lock timer setting.

Home touch buttons

Set the Home touch buttons displayed at the bottom of all screens. Set which keys are displayed, their position on the bar and what they look like.

Font type

Sets the type of font used for the phone and menus.

Font size

Sets the size of the font displayed in the phone and menus.

Brightness

Adjusts the brightness of the screen. For best battery performance, use the dimmest comfortable brightness.

Notification LED

Tap the switch to toggle it On or Off. On activates the LED light for the notifications you select, in the color you set for each.

Auto-rotate screen

Checkmark to set the phone to automatically rotate the screen based on the phone orientation (portrait or landscape).

Screen timeout

Sets the desired screen timeout option.

Screen mode

Allows you to set the desired screen mode. Choose from **Standard**, **Vivid** and **Natural**.

Screen-off effect

Select the screen-off effect when locking and turning off the screen. Choose from **Black hole**, **Retro TV** and **Fade out**.

Daydream

Tap the Daydream switch to toggle it On or Off. On allows to set a screensaver to be displayed when the phone is sleeping while docked and/or charging.

Auto-adjust screen tone

Checkmark to adjust the screen brightness automatically with an analysis of image color.

General tab

Language & input

Use the Language & input settings to select the language for the text on your phone and to configure the on-screen keyboard, including words you added to its dictionary.

- **Language** – Sets the language to use on your phone.
- **Spelling correction** – Allows spelling correction when using the on-screen keyboard.
- **Default** – Allows you to set the default keyboard to use when entering text.
- **LG Keyboard** – Checkmark to select the LG Keyboard to enter text. Tap  to change the following settings.
- **Google voice typing** – Checkmark to select Google voice typing to enter text. Tap  to change the Google voice settings.
- **Voice Search** – Sets voice search options.
- **Text-to-speech output** – Sets the preferred speech engine and speech rate (very slow to very fast). Also plays a short demonstration of speech synthesis.
- **Pointer speed** – Allows you to set the pointer speed using a slide bar.

Location

Allows you to manage locations services to determine your approximate location using GPS, Wi-Fi and mobile networks.

- **Mode** – Allows you to choose a location mode from **High accuracy (GPS and networks)**, **Battery saving (Networks only)** and **Device sensors only (GPS only)**.
- **Camera** – Checkmark to tag photos or videos with the location they were taken at.
- **Google Location Reporting** – Allows you to view and manage your Google location settings.

Accounts & sync

Permits applications to synchronize data in the background, whether or not you are actively working in them. Deactivating the **Auto-sync data** option can save battery power and lower (but not eliminate) data usage.

Accessibility

Use the Accessibility settings to configure accessibility plug-ins you have installed on your phone.

- **TalkBack** – Allows you to set up the TalkBack function, which assists people with impaired vision by providing verbal feedback. Tap  to toggle it On or Off. Tap **Settings** at the bottom of the screen to adjust the TalkBack settings.
- **Font size** – Allows you to change the font size.
- **Invert color** – Allows you to invert the screen and content colors.
- **Color adjustment** – Allows you to view the screen with greater color contrast. To adjust the contrast and hue, activate the feature and drag your finger across the screen.
- **Touch zoom** – Allows you to triple-tap the screen to zoom in and out.
- **Message/call voice notifications** – Tap  to toggle it On or Off. On allows your device to read out incoming calls and messages automatically.
- **Screen shade** – Checkmark to dim the screen's backlight for a darker contrast.
- **Accessibility shortcut** – Tap  to toggle it On or Off. On quickly enables accessibility features.
- **Text-to-speech output** – Sets the text-to-speech preferred engine and speech rate setting. Also plays a short demonstration of speech synthesis. Text-to-speech output provides an audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.
- **Audio type** – Sets the audio type. Choose **Mono** or **Stereo**.

Settings

- **Sound balance** – Routes the sound through both the right and left channel when a headset is connected. To manually set the audio route, move the slider on the sound balance bar to set it.
- **Flash alerts** – Checkmark to allow a flash to blink for incoming calls and notifications.
- **Turn off all sounds** – Checkmark to turn off all sounds.
- **Captions** – Tap  to toggle it On or Off. On customizes caption settings for those with hearing impairments. Set **Language**, **Font size**, and **Caption style**.
- **Touch feedback time** – Sets the touch and feedback time. Choose from **Short**, **Medium**, or **Long**.
- **Touch assistant** – Tap  to toggle it On or Off. On allows you to replace the hardware keys with a Touch assistant board that is displayed on the screen. Tap  to access **Power** button, **Home** button, **Volume down** button, **Volume up** button, and the **1/2** (page) button (**Screen capture** button, **Accessibility** button, and **Pinch** button). Draw a "C" ("call") on the board to automatically display the Dial tab. Draw an "M" on the board to automatically display the Messaging app. Draw a "W" ("web") on the board to automatically launch the browser app. Draw an "S" ("Settings") on the board to automatically display the settings app. Draw an "L" ("Lock screen") on the board to lock the screen.
- **Screen timeout** – Sets the screen timeout. Choose from **15 sec**, **30 sec**, **1 minute**, **2 min**, **5 min**, **10 min**, **15 min**, and **Keep screen turned on**.
- **Touch control areas** – Tap  to toggle it On or Off. On allows you to select an area of the screen to limit touch control. Press the Volume Down Button and tap the Home Key at the same time to activate and deactivate this feature.
- **Auto-rotate screen** – Checkmark to allow the phone to rotate the screen depending on the physical phone orientation (portrait or landscape).
- **Password voice confirmation** – Checkmark to allow voice confirmation of characters when entering passwords.

- **Power key ends call** – Checkmark so that you can end voice calls by pressing the Power/Lock Key.
- **Accessibility settings shortcut** – Sets quick, easy access to selected features when you triple-tap the Home Key. Choose from **Off**, **Show all**, **TalkBack**, **Invert colors**, **Touch assistant**, and **Accessibility settings**.
- **One-touch input** – Checkmark to enable one-touch input. It allows each finger touch to enter a letter or character on the LG keyboard.
- **Switch access** – Allows you to interact with your device using one or more switches that work like keyboard keys. This menu can be helpful for users with mobility limitations that prevent them from interacting directly with the your device. Tap **Settings** at the bottom of the screen to adjust the Switch access settings.

NOTE:

- Requires additional plug-ins to become selectable.

One-handed operation

- **Dial keypad** – Checkmark to enable you to move the dial keypad to the right or left side of the device. Simply tap the arrow to move it to one side or the other.
- **LG keyboard** – Checkmark to enable you to move the keyboard to the right or left side of the device. Simply tap the arrow to move it to one side or the other.
- **Lock screen** – Checkmark to enable you move the PIN Lock screen keypad to the right or left side of the phone. Simply tap the arrow to move it to one side or the other.
- **Help** – Displays information regarding one-handed operation.

Shortcut key

Get quick access to apps by pressing and holding the Volume button when the screen is off or locked. Tap the Shortcut key switch (Shortcut key switch image) in the upper-right corner of the screen to toggle it **On** or **Off**.

Security

- **Lock screen** – Allows you to set your lock screen settings.
- **Content lock** – Select lock types to lock files in Gallery. Choose from **Password** or **Pattern**.
- **Encrypt phone** – Allows you to encrypt data on the phone for security. You will be required to enter a PIN or password to decrypt your phone each time you power it on.
- **Encrypt SD card storage** – Allows you to encrypt the SD card and make data unavailable to other devices.
- **Password typing visible** – Checkmark to briefly show each character of passwords as you enter them so that you can see what you enter.
- **Phone administrators** – Allows you to view or deactivate phone administrators.
- **Unknown sources** – Allows you to install non-Play store applications.
- **Verify apps** – Disallow or warn before installation of apps that may cause harm.
- **Storage type** – Displays the storage type for credentials.
- **Trusted credentials** – Displays trusted CA certificates.
- **Install from storage** – Allows you to install encrypted certificates.
- **Clear credentials** – Deletes all secure certificates and related credentials and erases the secure storage's own password.
- **Trust agents** – View or deactivate Trust agents.

- **Screen pin** – This feature allows you to lock your device so that the current user can only access the pinned app. This is useful for users with children.

Gestures

- **Answer an incoming call** – Checkmark to enable you to bring the phone to your ear to automatically answer the incoming call.
- **Fade out ringtone** – Checkmark to allow you to pick up the phone from the flat surface to fade out the incoming call ringtone.
- **Silence incoming calls** – Checkmark to allow you to flip the phone to silence incoming calls.
- **Snooze or stop alarm** – Checkmark to allow you to simply flip the device to snooze or stop the alarm.
- **Pause video** – Checkmark to allow you to simply flip the device to pause the currently playing video.
- **Help** – Displays a Help guide on how to use the Gestures features of your device.
- **Motion sensor calibration** – Allows you to improve the accuracy of the tilt and speed of the sensor.

QuickCircle case

This menu allows you to select apps to be used directly on the cover in small view using QuickCircle.

Dual window

Allows you to configure the Dual Window feature.

- **Split view** – Checkmark to allow you to tap a link on the full screen or attachments from emails to open Dual window.
- **Help** – Display tips for using Dual window.

Settings

Date & time

Use the **Date & time** settings to set how dates will be displayed. You can also use these settings to set your own time and time zone rather than obtaining the current time from the mobile network.

Storage

- **Internal Storage** – Allows you to view information about the internal storage usage.
- **SD Card** – Allows you to view information about storage use on the SD card.

Battery

- **Battery information** – The Battery charge information is displayed on a battery graphic along with the percentage of the remaining charge and its status.
Touch the Battery charge icon to display the Battery use screen to see battery level and use details. The phone also displays which components and applications are using the most battery power. Tap one of the items to see more detailed information.
- **Battery usage** – Displays the battery usage level and battery use details.
- **Battery percentage on status bar** – Checkmark to display the battery level percentage on the Status Bar next to the Battery icon.
- **Battery saver** – Tap the Battery Saver switch to toggle it On or Off. Tap Battery Saver to access the following settings:
- **Help** – Displays help information for the Battery saver feature.

Smart cleaning

Allows you to manage unused apps and data.

Apps

View and manage your applications.

Default message app

This menu allows you to set your default messaging app as desired.

Backup & reset

This menu allows you to back-up your data, automatically restore data, and erase all the data on your phone.

- **Backup my data** – Allows you to back up your settings and application data to the Google server.
- **Backup account** – Allows you to back up your account.
- **Automatic restore** – Allows you to restore your settings and application data when the applications are reinstalled onto your device.
- **LG Backup service** – Backs up all information on the device and restores it in the event of data loss or replacement.
- **Factory data reset** – Reset your settings to the factory default values and delete all your data, including user data such as pictures and videos.

Printing

- **Cloud Print** – Allows you to manage your Google Cloud Print settings and print jobs.

About phone

Display information about the network, phone identity, battery, hardware, software, legal, and regulations and safety.

PC software (LG PC Suite)

For Windows OS

LG PC Suite helps you manage media contents and applications in your phone by allowing you to connect to your phone to your PC.

With the LG PC Suite software, you can...

- Manage and play your media contents (music, movie, pictures) on your PC.
- Send multimedia contents to your device.
- Synchronizes data (schedules, contacts, bookmarks) in your device and PC.
- Backup the applications in your device.
- Update the software in your device.
- Play multimedia contents of your PC from other device

! NOTE:

- ▶ Some functions may not be available, depending on the model.
- ▶ You can use the Help menu from the application to find out how to use the LG PC Suite software.

Installing the LG PC Suite Software

To download the LG PC Suite software, please do the following:

- 1 Go to www.lg.com.
- 2 Go to **SUPPORT > MOBILE SUPPORT > PC Sync**.
- 3 Select the model information and click **GO**.
- 4 Scroll down, select the **PC SYNC** tab > **Windows** > **DOWNLOAD** to download LG PC Suite.

System Requirements for LG PC Suite software

- OS: Windows XP (Service pack 3) 32 bit, Windows Vista, Windows 7, Windows 8
- CPU: 1 GHz or higher processors
- Memory: 512 MB or higher RAMs
- Graphic card: 1024 x 768 resolution, 32 bit color or higher
- HDD: 500 MB or more free hard disk space (More free hard disk space may be needed depending on the volume of data stored.)
- Required software: LG United drivers, Windows Media Player 10 or later.

! NOTE: LG United USB Driver

- ▶ The LG United USB driver is required to connect an LG device and PC. It is installed automatically when you install the LG PC Suite software application.

For Mac OS

With the LG PC Suite software, you can...

- Manage and play your media contents (music, movie, pictures) on your PC.
- Send multimedia contents to your device.
- Synchronizes data (schedules, contacts, bookmarks) in your device and PC.

! NOTE:

- ▶ Some functions may not be available, depending on the model.
- ▶ You can use the Help menu from the application to find out how to use the LG PC Suite software.

PC software (LG PC Suite)

Installing the LG PC Suite Software

To download the LG PC Suite software, please do the following:

- 1 Go to www.lg.com.
- 2 Go to **SUPPORT > MOBILE SUPPORT > PC Sync**.
- 3 Select the model information and click **GO**.
- 4 Scroll down, select the **PC SYNC** tab > **Mac OS > DOWNLOAD** to download LG PC Suite.

System Requirements for LG PC Suite software

- OS: Mac OS X (10.6.8) or higher
- Memory : 2 GB RAM or higher
- Graphics card: 1024 x 768 screen resolution or higher and 32-bit color
- Hard disc: Storage of 500 MB or higher (Additional space may be required for data)
- Required software: LG United Mobile driver

NOTE: LG United USB Driver

- ▶ The LG United USB driver is required to connect an LG device and PC. It is installed automatically when you install the LG PC Suite software application.

Software Update

Phone Software Update

This feature allows you to update the firmware of your phone to the latest version conveniently from the internet without the need to visit a service center.

For more information on how to use this function, please visit:

<http://www.lg.com/common/index.jsp>.

As the mobile phone firmware update requires the user's full attention for the duration of the update process, please make sure to check all instructions and notes that appear at each step before proceeding. Please note that removing the USB cable during the upgrade may seriously damage your mobile phone.

LG Mobile Phone Software Update via Over-the-Air (OTA)

This feature allows you to update the firmware of your phone to the newer version conveniently via OTA without connecting the USB cable. This feature is only available if and when LG makes the newer version of the firmware available for your device.

First, you can check the software version on your mobile phone:

From the Home screen, tap the **Apps Key**  > **Settings**  > **General** tab > **About phone** > **Software info**.

To perform the phone software update, from the Home screen, tap the **Apps Key**  > **Settings**  > **General** tab > **About phone** > **Software Update** > **Update now**.

! NOTE

- ▶ Your personal data—including information about your Google account and any other accounts, your system/application data and settings, any downloaded applications and your DRM licence —might be lost in the process of updating your phone's software. Therefore, LG recommends that you back up your personal data before updating your phone's software. LG does not take responsibility for any loss of personal data.

Trademarks

Trademarks

- Copyright 2015 LG Electronics, Inc. All rights reserved. LG and the LG logo are registered trademarks of LG Group and its related entities.
- Bluetooth® is a registered trademark of the Bluetooth SIG, Inc. worldwide.
- Wi-Fi®, the Wi-Fi CERTIFIED logo, and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance.
- All other trademarks and copyrights are the property of their respective owners.



This DivX Certified® device has passed rigorous testing to ensure it plays DivX® video.

To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.

DivX Certified® to play DivX® video up to HD 720p, including premium content.

DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.

! NOTICE**► Open Source Software Notice Information**

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>.

In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

- Wi-Fi® and Wi-Fi Protected Access® are registered trademarks of the Wi-Fi Alliance.

Dolby Digital Plus  **DOLBY**
DIGITAL PLUS

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

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

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

A Tap the **Phone Key**  and tap the **Call logs** tab.

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

A When the frequency environment is unstable in a certain area, connection may be inconsistent and inaudible. Relocate to another area and try again.

Q Why is the connection inconsistent or abruptly disconnects even when established?

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

Q Why does the phone heat up?

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

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

A This may be due to the user environment, a large number of calls or a weak signal.

Q Why is no number dialed when an Address Book entry is recalled?

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

Q The screen got frozen. How can I solve this problem?

A Press and hold the **Power/Lock Button**  for 10 seconds to turn it off. Then press and hold the **Power/Lock Button**  again for 3 seconds to reboot the phone.

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. Visit your local AT&T store or www.att.com/wirelessaccessories for specific offerings.

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.

Troubleshooting

This chapter lists some problems you might encounter when using your phone. Some problems require you to call your service provider, but most are easy to fix yourself.

Message	Possible causes	Possible corrective measures
SIM or USIM card error	There is no SIM or USIM card in the phone or it is inserted incorrectly.	Make sure that the SIM card is correctly inserted.
No network connection/ Dropped network	Signal is weak or you are outside the carrier network.	Move toward a window or into an open area. Check the network operator coverage map.
	Operator applied new services.	Check whether the SIM card is more than 6~12 months old. If so, change your SIM card at your network provider's nearest branch. Contact your service provider.
Codes do not match	To change a security code, must confirm the new code by re-entering it.	If you forget the code, contact your service provider.
	The two codes you entered do not match.	

Message	Possible causes	Possible corrective measures
No applications can be set	Not supported by service provider or registration required.	Contact your service provider.
Calls not available	Dialing error	New network not authorized.
	New SIM or USIM card inserted.	Check for new restrictions.
	Pre-paid charge limit reached.	Contact service provider or reset limit with PIN2.
Phone cannot be turned on	On/Off key pressed too briefly.	Press the On/Off key for at least two seconds.
	Battery is not charged.	Charge battery. Check the charging indicator on the display.

Troubleshooting

Message	Possible causes	Possible corrective measures
Charging error	Battery is not charged.	Charge battery.
	Outside temperature is too hot or cold.	Make sure phone is charging at a normal temperature.
	Contact problem	Check the charger and its connection to the phone.
	No voltage	Plug the charger into a different outlet.
	Charger defective	Replace the charger.
	Wrong charger	Use only original LG accessories.
Number not allowed.	The Fixed dialing number function is on.	Check the Settings menu and turn the function off.
Impossible to receive/ send text messages & photos	Memory full	Delete some messages from your phone.
Files do not open	Unsupported file format	Check the supported file formats.

Message	Possible causes	Possible corrective measures
The screen does not turn on when I receive a call.	Proximity sensor problem	If you use a protection tape or case, make sure it has not covered the area around the proximity sensor. Make sure that the area around the proximity sensor is clean.
No sound	Vibration mode	Check the settings status in the sound menu to make sure you are not in vibration or silent mode.
Hangs up or freezes	Intermittent software problem	Try to perform a software update through the website.

For Your Safety

Important Information

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

Before You Start

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



- ▶ Never place your phone in a microwave oven as it will cause the battery to explode.



- ▶ When riding in a car, do not leave your phone or set up the hands-free kit near the air bag. If wireless equipment is improperly installed and the air bag is deployed, you may be seriously injured.



- ▶ Your phone contains an internal battery. Do not dispose of your phone near fire or with hazardous or flammable waste. You should dispose of your phone in accordance with all applicable laws.
- ▶ Do not use the phone in areas where its use is prohibited. (For example: aircraft)



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



- ▶ Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. This could cause a fire.



- ▶ Do not drop, strike, or shake your phone severely. It may harm the internal circuit boards of the phone.



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



- ▶ Do not damage the power cord by bending, twisting, pulling, 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.
- ▶ 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 disassemble the 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 attempt to repair or modify the device yourself. Your device is equipped with an internal rechargeable battery which should be replaced only by LG or an authorized LG repair center.

You should never attempt to open or disassemble this device yourself and doing so may cause damage that voids your warranty.

For Your Safety



- ▶ Make sure that no sharp-edged items, such as animal's teeth or nails, come into contact with the battery. This could cause a fire.



- ▶ 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.



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



- ▶ Only use chargers provided by LG. The warranty will not be applied to products provided by other suppliers.
- ▶ Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.



- ▶ 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.
- ▶ 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 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.

- ▶ The back cover of this product applies a “self-healing” technology, which self-repairs minor scratches in just a few minutes. Minor scratches are those caused by ordinary and normal use of the phone. Scratches caused by abrasive surface, misuse, including but not limited to intentional scratches, and damages caused by a fall or dropping the product, may not disappear. The “self-healing” results may vary depending on the extent of the damage as well as other conditions. Any warranty on the “self-healing” is hereby expressly excluded.
- ▶ The flexibility of this product is limited to withstand ordinary and normal use. This phone may be bent flat up to 180 degrees for a limited period of time but should not be bent inward. Damages caused by misuse, including but not limited to intentionally bending or continually exerting force on the product, may lead to permanent damage to the display and/or other parts and functions of the phone.

HAC

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 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 use with the back of the phone kept 0.39 inches (1.0 cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1.0 cm) must be maintained between the user's body and the back of the phone. **Any** belt-clips, holsters, and similar accessories containing metallic components may not be used. Avoid the use of accessories that cannot maintain 0.39 inches (1.0 cm) distance between the user's body and the back of the phone and have not been tested for compliance with FCC RF exposure limits.

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/cgb/cellular.html> 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 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 or visit the Cellular Telecommunications Industry Association website at 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 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

http://www.rsc.ca/index.php?page=Expert_Panels_RF&Lang_id=120

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/>

Consumer Information on SAR

(Specific Absorption Rate)

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

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted 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.

For Your Safety

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on **ZNFH810**. 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.

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

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

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

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users 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.

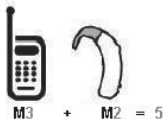
The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate 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 ensure that the Hearing Aid Compatibility rating for your phone is maintained, secondary transmitters such as Bluetooth and WLAN 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

Hearing Loss Association of America [HLAA]

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

Caution:

Avoid potential hearing loss.

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise-induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices). Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device:

- ▶ Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- ▶ When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.

- ▶ Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise.
- ▶ Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- ▶ Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- ▶ Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

TIA Safety Information

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

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.

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

Changes 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.

Safety Information

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

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. Such conditions may present the risk of fire or explosion.
- ▶ 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.
- ▶ Avoid dropping the phone or exposing the phone or battery to a liquid. If the phone especially on a hard surface, or is exposed to a liquid or comes into contact with a sharp object take it to a service center for inspection.
- ▶ At least, one of the Authentication methods may be implemented. (e.g. H/W, S/W, Mechanical, Hologram, etc.)
- ▶ Improper battery use may result in a fire, explosion or other hazard.

Charger and Adapter Safety

- ▶ The charger and adapter are intended for indoor use only.
- ▶ Insert the battery charger vertically into the wall power socket.
- ▶ Only use the LG-approved battery charger. Otherwise, you may cause serious damage to your phone.

- ▶ Use the correct adapter for your phone when using the battery charger abroad.

Battery Information and Care

- ▶ Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- ▶ 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. Always cover the receptacle when not in use.
- ▶ Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- ▶ Please use only an approved charging accessory to charge your LG phone. Improper handling of the charging port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.
- ▶ Charging temperature range is regulated between 0°C/32°F and 45°C/113°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 nearby the place where generates static electricity more than 100V which gives damage to the protection

For Your Safety

circuit. If the protection circuit were broken, the battery would generate smoke, rupture or flame.

- ▶ If the skin or cloth is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation.
- ▶ Please take your phone to an authorized service center immediately if this occurs.
- ▶ 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.
- ▶ The charger and adapter are intended for indoor use only.
- ▶ Talking on your phone for a long period of time may reduce call quality due to heat generated during use.

Explosion, Shock, and Fire Hazards

- ▶ Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- ▶ 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 and may cause an explosion. Always cover the receptacle when not in use.

General Notice

- ▶ 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.
- ▶ Do not immerse your phone in water, liquid, or expose to high humidity. Immediately, take it to an LG Authorized Service Center.
- ▶ Do not paint your phone.
- ▶ 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.
- ▶ Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely and do not touch the antenna unnecessarily.

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 standby mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

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

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit 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 do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

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

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

- ▶ National Institute for Occupational Safety and Health

- ▶ Environmental Protection Agency
- ▶ Occupational Safety and Health Administration
- ▶ National Telecommunications and Information Administration

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

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

The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?

The term “wireless phone” refers here to handheld wireless phones with built-in antennas, often called “cell”, “mobile”, or “PCS” phones. These types of wireless phones can expose the user to measurable 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

For Your Safety

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:

FDA web page on wireless phones

(<http://www.fda.gov/cellphones/>)

Federal Communications Commission (FCC) RF Safety Program

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

International Commission on Non-Ionizing Radiation Protection

(<http://www.icnirp.de>)

For Your Safety

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.

10 Driver Safety Tips

Your wireless phone gives you the powerful ability to communicate by voice almost anywhere, anytime. An important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When operating a car, driving is your first responsibility. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient

time, if possible, let your voicemail answer it for you.

4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Don't take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to-do" list while driving a car, you are not watching where you are going. It is common sense. Do not get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light, or otherwise stationary. But if you need to dial while driving, follow this simple tip -- dial only a few numbers, check the road and your mirrors, then continue.
7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations -- with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard, or medical emergency. Remember, it's a free call on your wireless phone!
9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.
10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your



For Your Safety

wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

The above tips are meant as general guidelines. Before deciding to use your mobile device while operating a vehicle, it is recommended that you consult your applicable jurisdiction's local laws or other regulations regarding such use. Such laws or other regulations may prohibit or otherwise restrict the manner in which a driver may use his or her phone while operating a vehicle.