







## Pen Pop

The Pen Pop feature allows you to quickly and easily access options to create a memo. Pull the pen out and Pen Pop opens.

### Setting up Pen Pop

Tap the Home button  > Settings > Pen .

### Pen Pop options

- ▶ : Hide/display the Pen Pop options.
- ▶ : Open the Pop Memo to write a memo.
- ▶ : Open the Capture+ and use the current screen image in a memo.
- ▶ : Open the Pop Scanner to capture a photo with the camera and use it in a memo.
- ▶ : Open the QuickMemo+ and view current memos.
- ▶ : Add a shortcut to the app of your choice.

**NOTE**

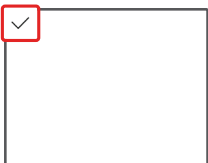
You can change the personalized shortcut by touching and holding icon in the Pen Pop options.




## Capture+


Capture+ is a memo-writing feature that allows you to capture a screen shot and use it to write a memo.

**NOTE** You can also change your memo's background to plain paper. Once plain paper is selected, it remains set until you change it back to the screen background.

### To access the Capture+ feature












1. While viewing the screen you want to capture, drag the Status Bar downward, then tap the **Capture+** icon  in the Quick settings bar.
2. Select the desired tool from the toolbar (**Pen type, Color, Eraser, etc.**). Then create a memo using a fingertip to draw or erase pen marks (don't use your fingernail or any other rigid object).
3. Tap the **Done** icon  to save the memo or tap the **Back** button  to exit. If you exit without saving your memo, whatever you've drawn will appear the next time you access **Capture+**.

**NOTE** Tap the toolbar handle  (at the top of the screen) to display or hide the Capture+ toolbar options.

## Using Capture+ toolbar options

The following toolbar options are available when using Capture+.


|   |  |
|---|--|
|  | Tap to save your memo. Choose QuickMemo+ or Gallery.<br><b>NOTE</b> If you save it to QuickMemo+, you can edit your memo from the QuickMemo+ app later.  |
|  | Tap to undo the most recent action.  |
|  | Tap to redo the most recently deleted action.  |
|  | Tap to insert text into your memo, add reminders, and more.  |
|  | Tap to select the pen type, size, color, and transparency.   |
|  | Tap to erase pen marks you've made on the memo.  |
|  | From a basic memo, the Slice tool allows you to surround part of your memo, then tap the Text tool <b>T</b> which will automatically paste only that part into a new QuickMemo+ page.  |
|  | Tap to access the options menu. From a basic memo, choose from <b>Share</b> and <b>Paper style</b> . From a memo with text, choose from <b>Delete</b> , <b>Insert</b> , <b>Share</b> , <b>Change category</b> , <b>Lock</b> , <b>Paper style</b> , and <b>QSlide</b> . |
|  | Tap to hide or display the toolbar.  |

## Viewing saved memos


Tap the **Home button** .

- ▶ Swipe to the left, if necessary > tap **Gallery**  > the **Capture+** album, then tap the desired memo.

**OR**

- ▶ Swipe to the left > **QuickMemo+** , then tap the desired memo.

## Capturing a screen shot

To capture a screen shot without the Capture+ feature, press both the **Power/Lock button**  and the **Volume Down** button at the same time. The captured image is automatically saved in the **Gallery** app in the **Screenshots** album.




## QSlide

The QSlide function enables an overlay window on your phone's display for easy multi-tasking. The overlay window can be moved, resized, or made transparent. QSlide windows can be opened directly from the apps that support the QSlide function.

### To open a QSlide window

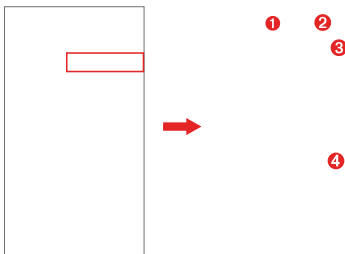
- ▶ While using an app that supports QSlide, tap **QSlide** in the Options menu.
- ▶ You can provide QSlide on the **Home touch buttons**, and allow you to easily use QSlide.



1. Tap the **Home Button**  > **Settings**  > **Display** > **Home touch buttons** > **Button combination**.
2. Drag the **QSlide icon**  to rearrange the Home touch buttons.

## Using QSlide

The QSlide function opens the associated app in a window in the foreground, allowing you to access other apps in the background. It's displayed continuously on the screen until you close it.



|   |  |   |
|---|--|---|
| 1 |  | Tap to return to full window view.            |
| 2 |  | Slide to adjust the transparency.             |
| 3 |  | Tap to exit the QSlide function.              |
| 4 |  | Drag to adjust the size of the QSlide window. |






### NOTE


The QSlide function can support up to two windows at the same time. QSlide only supports the following apps: Video, Phone, Contacts, Messaging, Calendar, Calculator, Email, and File Manager.

## Clock

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

### Setting an alarm

1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > tap **Clock**  > the **Alarm** tab > the **Add** icon .
2. Set the desired alarm time. Tap the hour (or minutes), then tap the time you want on the clock graphic. Tap the **Keypad** icon  to set the time using a keypad instead of the clock graphic. Tap **AM** or **PM** as necessary.
3. Set **Repeat**, **Alarm sound**, **Alarm volume**, **Alarm with vibration**, **Snooze duration**, **Enter memo text**, **Auto-start app**, and **Puzzle lock**.
4. Tap **SAVE**.

**NOTE** To access (and change) the alarm settings from the alarm list screen, tap the **Menu** icon  then tap **Settings**.


### Activating your alarm(s)

1. Open the **Clock** app and tap the **Alarm** tab (if necessary).
2. Turn on the switch on the right side of the alarm you want to activate.

**NOTE** Tap an alarm time to modify the alarm. Tapping **SAVE** will automatically activate the alarm.

### Setting the World Clock

The **World clock** tab allows you to set up a list of cities to easily check current times in other time zones with a quick glance.

1. Open the **Clock** app, then select the **World clock** tab.
2. Tap the **New City** icon , search through the available cities, then tap the one you want.

**NOTE** A network connection is necessary to search for cities.

## Timer

The **Timer** tab 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 the **Start** button to start the timer.
4. Tap the **Stop** button to stop the timer.









## Stopwatch

The **Stopwatch** tab allows you to use your device as a stopwatch.




1. Open the **Clock** app, then select the **Stopwatch** tab.
2. Tap the **Start** button to initiate the stopwatch.
  - ▶ Tap the **Lap** button to record lap times.
3. Tap the **Stop** button to stop timing.

## Calculator

### Using your calculator


1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **Calculator** .
2. Tap the number buttons to enter numbers.
3. For simple calculations, tap the numbers and function (, ,  or ) , then tap the **Result** button .

### NOTES

- For more complex calculations, you can switch to the Scientific calculator. Simply rotate the phone sideways, or tap the **Menu** icon  then tap **Scientific calculator**.
- To view the calculation history, tap the **Menu** icon  then tap **Calculation history**.
- To use the calculator in the **QSlide** function, tap the **Menu** icon  then tap **QSlide**.
- You can touch and hold the calculation field to copy its information to your Clip Tray.





## Calendar

### Viewing your calendar and events

The **Calendar** app allows you to track your schedule of events (that you created or that you've been invited to), organized by day, week, month, year, or agenda. Tap the **Calendar Menu** icon  to switch calendar views or access your Tasks list.

When you first set up your phone, you configured it to use an existing Google Account or you created a new account. The first time you open the **Calendar** app on your phone, it displays any existing calendar events from your Google Account on the web.


### Adding an event to your calendar

1. Tap the **Home button**  > swipe left, if necessary > tap **Calendar** .
2. Tap the **Calendar Menu** icon  to change the calendar view (Day, Week, Month, Year, or Agenda), if necessary.
3. Tap the date (or the time in the day calendar view) you want to add an event to and tap the **New event** icon .
4. Enter the event name.
5. Tap the **Location** field and enter the location. Check the date and enter the time you wish your event to start and finish.
6. Enable the **All day** switch, if applicable.
7. Tap **More** to enter additional options such as **Reminders**, **Repeat**, **Repeat until**, **Guests**, **Description**, **Show me as**, and **Privacy**, as necessary.
8. Tap **SAVE** to save the event in the calendar.



### QSlide for the Calendar app






You can view your month calendar in a QSlide window allowing you to easily check dates, obligations, etc. while using other apps at the same time.

1. Open the **Calendar** app.
2. Tap the **Menu** icon  , then tap **QSlide** to display the month Calendar in a QSlide window.
  - ▶ Swipe left and right to scroll through the months.
  - ▶ Tap a date to view the events for that day in your day calendar.

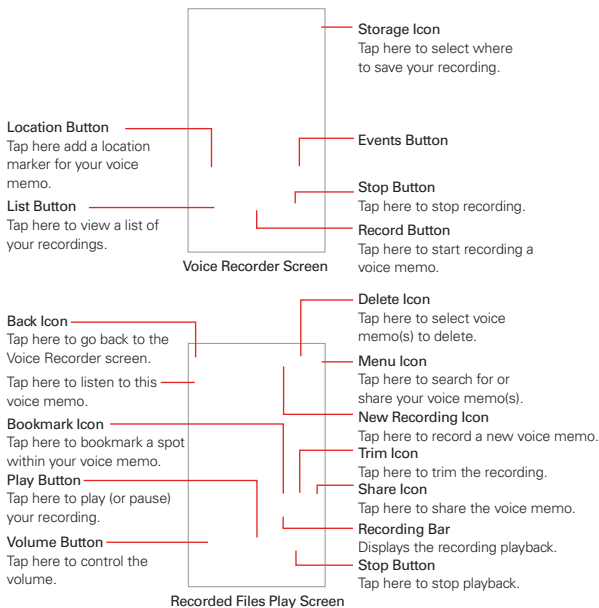
## Voice Recorder

The **Voice Recorder** app records audible files. Use them to simply remind you about something you don't want to forget (like a grocery list) or record sound effects that you can attach to a message.











### Record a voice memo

1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools folder**  > **Voice Recorder** .
2. Tap the **Record button**  to start recording, then speak into the microphone.
3. When you're finished, tap the **Stop button** .
 

The recording is automatically saved to your recordings list.




### Play a voice memo

1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **Voice Recorder** .
2. Tap the **List** button .
3. Tap the voice memo you want to play.
4. Use the following options while listening to a voice memo.
  - ▶ Tap the **Pause** button  to pause the recording.
  - ▶ Tap the **Stop** button  to end the playback and return to the Recorded files list screen.
  - ▶ Tap the **Volume** button  to increase or decrease the volume. It also allows you to modify all phone volumes.
  - ▶ Tap on the recording bar to listen to a specific part of the recording.
  - ▶ Tap the **Bookmark** icon  to mark a place within the recording so you can jump directly to that spot when you play the recording.
  - ▶ Tap the **Trim** icon  to trim away segments at the beginning or end of the recording.
  - ▶ Tap the **Share** icon  to share the voice memo using the available choices.


**NOTE** Voice memos with bookmarks can't be shared.

### Managing your voice memos




From the Recorded files list screen:

- ▶ Tap the **Options** icon . Tap **Share**, select the file(s), tap **SHARE**, then complete the sharing method as necessary.
- ▶ Touch and hold a voice memo to open a context menu to select **Delete**, **Rename**, or **Details**.





## File Manager

Use the **File Manager** app to easily view and manage your folders and files stored in your phone. When you open File Manager, all of your phone's internal storage file folders are displayed. To access the file(s) you want, manually browse by tapping any folder icon (and subsequent folder icons within each folder), or enter search text by tapping the **Search** icon .


### To open the File Manager app

Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **File Manager** .

### Using File Manager

- ▶  : Allows you to choose which folders to display. Choose from **Internal storage**, **SD card**, and **Cloud**.
- ▶  : Allows you to search for files you want by entering text.
- ▶  : Allows you to select folders or files to delete.
- ▶  : Allows you to access **New folder**, **Move**, **Copy**, **Share**, **Zip**, **View as**, **Sort by**, **Show/Hide hidden files**, **SD card settings**, and **QSlide**.

### Searching in File Manager

Open the **File Manager** app, select where you want to search (Internal storage, SD card, or Cloud) if necessary, then tap the **Search** icon  to search for your files or information.

## Google Apps

To use Google apps, a Google Account needs to be registered in your device first. The Google Account registration window appears automatically when you use a Google app for the first time (if you didn't register your account when you initially set up your device). If you do not have a Google Account, create one from your device. For details on how to use an app, refer to the Help text in the app.

### Drive

Upload, save, open, share, and organize files from your device. Files accessible from apps can be accessed from anywhere, including online and offline environments.

### Maps

Find your location or the location of a specific place on a map. View geographical, traffic, or transit information. Get directions to destinations.

### Photos

View or share photos or albums saved on your device. Edit or enhance your photos.

### Hangouts

Exchange real-time messages with the people in your life. Make a video call with an individual or a group.

### Chrome

Sign in to Chrome and import opened tabs, bookmarks, and address bar data from a computer to your device.

### Gmail

Register your Google email account in your device to check or send email.

### Play Movies and Watch TV

Use your Google Account to rent or purchase movies. Purchase content and play it anywhere.

## YouTube

Search for and play videos. Upload videos on YouTube to share them with people around the world.

## Play Music

Use your Google Account to purchase music files from Play Store. Play music files saved on your device.

## Settings



The **Settings** app allows you to customize and personalize your phone by setting how its screens look, how it notifies you, how it reacts, and a lot more.


**NOTE** Settings that are specific to an app are accessed through its own Settings menu within the app. For example, the **Chrome** app has settings specific to your Internet access.

### To open the Settings app


▶ Tap the **Home button**  > **Settings** .

**OR**

▶ Tap the **Home button**  > touch and hold the **Recent apps button**  > **Settings**.

**TIP** The upper-right corner of the Notifications panel also has a **Settings icon**  that you can tap to open the **Settings** app.

### Viewing settings

Tap the **Menu icon**  at the upper-right corner of the **Settings** app, then tap **Tab view** (or **List view**).


- ▶ **List view** Scroll up and down through the list.
- ▶ **Tab view** Swipe left and right or tap the tab you want.

**NOTE** The instructions to perform tasks in this guide are based on the default **List view** setting.


## WIRELESS NETWORKS

The Wireless Networks category allows you to configure and manage your device's wireless radio communications.

### **Airplane mode**

Tap its switch  to toggle it On or Off. On disables all wireless connections.

### **Wi-Fi**

Tap its switch  to toggle it On or Off. On connects to a Wi-Fi network (from your list of available, detected networks). Tap **Wi-Fi** to access the following settings to manage your Wi-Fi connection(s).

#### WI-FI NETWORKS

Displays all of the Wi-Fi networks that are within access range.

Tap one to connect to it. Touch and hold one to open its context menu.

**SEARCH** Searches for nearby Wi-Fi networks.

**Menu icon** : Accesses the Wi-Fi options menu.

**Add Wi-Fi** Allows you to manually add a Wi-Fi network by entering its name (SSID), security, and password.

**Saved Wi-Fi** Displays your saved Wi-Fi networks allowing you to manage them.

**Advanced Wi-Fi** Provides additional specific Wi-Fi connection settings.

#### NOTIFICATIONS

**Wi-Fi notifications** Enable this option to be notified if Wi-Fi networks are available nearby.

**Show Wi-Fi pop-up** Enable this option to be notified when a Wi-Fi network is available when you launch an app.

#### USEFUL SETTINGS

**Manage networks** Allows you to specify the order in which your Wi-Fi networks will be detected. Tap a network to connect to it, view it, forget it, or modify it.



**Keep Wi-Fi on during sleep** Allows you to set the Wi-Fi status when the screen is off.

**Avoid bad Wi-Fi connections** Enable this option to use the mobile network whenever the Wi-Fi network you're connected to doesn't have an Internet connection. (Data usage may apply.)

## CONNECTION

**Wi-Fi Direct** Allows you to connect with Wi-Fi devices without any access point.

**Connect by WPS button** Provides information to connect to a secured Wi-Fi network with a WPS button.

**Connect by WPS PIN** Provides the WPS PIN to connect to a secured Wi-Fi network.

## PERSONAL

**Install certificates** Allows you to install certificates from storage.


## INFORMATION

**MAC address** Displays your phone's MAC address (which may need to be entered in the router to connect to some wireless networks with MAC filters).

**IP address** Displays your phone's IP address.

**Help** Displays information about Wi-Fi networks.

## ⌘ **Bluetooth**

Tap its switch  to toggle it On or Off. On allows you to pair and connect with other Bluetooth devices. Tap **Bluetooth** (with Bluetooth on) to use and manage your Bluetooth devices.

**LG Stylo2** Displays your phone's name and visibility status.

## AVAILABLE DEVICES

Displays all of the Bluetooth devices that are within your phone's range. Tap one to pair and connect.

**SEARCH** Searches for nearby Bluetooth devices.


**Menu icon** : Accesses the Bluetooth options menu.

**Edit phone name** Allows you to change your phone name for easy identification when pairing and connecting.

**Received files** Displays a list of the files received via a Bluetooth device.

**Help** Displays information about Bluetooth features.

## **Mobile Hotspot**

Tap its switch  to toggle it On or Off. On allows you to use your device as a mobile hotspot for other devices to use your mobile network connection. Tap **Mobile Hotspot** to manage its settings.

**Set up Mobile Hotspot** Allows you to enter the SSID and security information for your mobile hotspot.

**Manage connections** Allows you to control which devices are allowed to use your device as a hotspot.

**Timeout** Allows you to set when to turn off your hotspot.

## CONNECTED DEVICES

Displays all connected devices.

**NOTE** Tap the **Menu icon**  to access mobile hotspot tips and help.

## **Data usage**

**Mobile data** Enable this option to allow connection to the mobile network. This switch allows you to manage your mobile data usage (e.g., disconnect from the mobile network to stop using mobile data and use a Wi-Fi network connection for data instead).

**Limit mobile data usage** Enable this option so you can set the amount of data that can be used during your cycle date. When that amount is reached, your mobile data network connection will be disabled.

**Alert me about data usage** Enable this option so you can set the amount of data usage that will trigger an alert.

**Cycle date** The date displayed is your current data usage cycle. Tap it to change it.

**Graph** Displays a visual of your data usage. Limit lines are displayed if the data usage switches are enabled.

**Apps list** All of the apps that use data are listed.

**Menu icon** : Accesses the Data usage options menu.

**Display in MB/GB** Changes the data usage units.

**Restrict background data** Checkmark this option to restrict the data that runs in the background.

**Show Wi-Fi usage** Checkmark this option to display a Wi-Fi tab (in addition to the Mobile tab) to view your Wi-Fi data usage.

**Mobile hotspots** Displays the networks that can be used as mobile hotspots. Turn on Wi-Fi and search, if necessary.

**Mobile networks** Allows you to set specific mobile network settings including enabling mobile data, data roaming access, system select, network type and strength, APNs, and roaming state.

### **Advanced Calling**

You can make High-Definition Voice and Video Calls, and surf the web while you talk on the phone, when you add Advanced Calling to your line.

Visit [VerizonWireless.com/AdvancedCalling](http://VerizonWireless.com/AdvancedCalling) to learn how.

### **Share & connect**

#### DATA SHARE

**File sharing** You can send and receive files between your device and other LG devices or tablets.

**LG Stylo2** Allows you to change your phone's name for easy identification when setting up your devices for beaming.

**Save to** Allows you to set where to save your shared files.

**File Sharing** Enable this option to make your device visible to BLE devices and allow sent files.

**SmartShare Beam** Enable this option to allow you to receive multimedia content via SmartShare Beam from another LG phone or tablet.

**Help** Displays information regarding how to use file sharing.

**Media server** Allows you to share the phone's multimedia content with nearby DLNA-compatible devices.

**Content sharing** Enable this option to allow nearby devices to access your content.

## YOUR PHONE

**LG Stylo2** Allows you to change your phone's name to easily identify it.

**Content to share** Allows you to set the type of content you want to share between your devices.

## NEARBY DEVICES

**Allowed devices** Displays the nearby devices that can access your phone.

**Not-allowed devices** Displays the nearby devices that will be denied access to your phone.

## CONNECTION

**Printing** Allows you to set up wireless printer(s).

### PRINT SERVICES

**Cloud print** Allows you to search for and view the list of available printers.

**Menu icon**  Accesses the Print Options menu so you can add additional printing apps.

## More

### TETHERING & MOBILE HOTSPOT

**USB tethering** Enable this option to allow you to connect via USB. This option is gray when not connected via USB.

**Bluetooth tethering** Enable this option to share the phone's Internet connection with other Bluetooth devices.

**Help** Displays help information regarding connecting other devices to your phone's Internet connection.

## NETWORK

**Mobile networks** Allows you to set various mobile network settings.

**Mobile data** Enable this option to allow data access over the mobile network.

**Data roaming access** Allows you to set when to allow data roaming.


**System select** Allows you to set your network mode, as well as network submodes and operators.

**Network type and strength** Displays the current network type and the signal strength.

**Access Point Names** Allows you to set up APNs for data service.

**Roaming state** Displays your current roaming state.

**VPN** Allows you to set up VPNs (Virtual Private Networks). Choose **Basic VPN** or **LG VPN**.

**NOTE** Tap the **Menu** icon  to access additional settings. From the Basic VPN screen, it accesses **Always-on VPN**. From the LG VPN screen, it accesses **Settings**, **Import certificates**, and **About**.

**Emergency alerts** Allows you to view emergency alerts and customize your emergency alerts settings.

## DEVICE

The Device category allows you to configure and manage the general device functions such as sound and display options.

### Sound & notification

#### GENERAL

**Sound profile** Allows you to set whether your device emits sound, just vibrates, or is silent.

#### SOUND

**Volume** Allows you to set individual volume levels for ringtone, notifications, touch feedback, and other media.

**Ringtone** Allows you to set the ringtone for calls. You can also add and delete ringtones.

**Ringtone ID** Enable this option to allow you to set calls to play a specially composed ringtone. Tap **Ringtone ID** to set which calls.

#### VIBRATION

**Sound with vibration** Enable this option to emit sound as well as vibration.

**Vibration type** Allows you to set the vibration pattern.

#### NOTIFICATIONS

**Do not disturb** Enable this option to allow you to set up and schedule when to prevent interruptions from notifications. You can set specific parameters that will override the Priority only setting.

**Lock screen** Allows you to set the level of privacy for notifications displayed on your Lock screen.

**Apps** Allows you to set notifications for individual apps including preventing them from displaying notifications, and setting priority, hiding sensitive content, allowing peeking, and more.

**Notification light** Enable this option to activate the LED light for the notifications you select. Tap **Notification light** to set which notifications.

## ADVANCED SETTINGS

**Notification sound** Allows you to set the sound heard for new notifications. You can also add and delete notification sounds.

**Vibrate on tap** Enable this option to feel a vibration when you tap the Home touch buttons or app icons.

**Sound effects** Allows you to set when a sound is emitted to notify you of an event. Enable **Keypad sound**, **Touch sound**, **Screen lock sound**, **Sound when roaming**, and set the emergency tone behavior.

**Message/call voice notifications** Enable this option to allow your phone to automatically read your incoming calls and/or messages outloud. Tap **Message/call voice notifications** to modify your notification settings for Calls, Messages, Read messages, and Language.

## **Display**

### FONT

**Font type** Allows you to set the type used for the phone software.

**Font size** Allows you to set the size of the type used for the phone software.

**Bold text** Enable this option to bold the text on the screen.

### BASIC

**Brightness** Allows you to set the brightness for the screen or you can checkmark its automatic setting.

**Reader mode** Reduce amount of blue light on screen to reduce eye strain.

**Auto-rotate screen** Enable this option to allow the screen to rotate automatically based on its orientation.

**Screen timeout** Allows you to set the amount of time before the screen times out due to inactivity to your conserve power.

**Home touch buttons** Allows you to set the buttons displayed at the bottom of all screens.

## ADVANCED SETTINGS

**Daydream** Enable this option to activate a screensaver when your phone is sleeping while docked and/or charging. Tap **Daydream** to choose which screensaver and also change its settings.

### Home screen

#### GENERAL

**Select Home** Allows you to set the layout for the Home screen. You can choose the standard Android layout that displays all apps on the Home screen, a simplified Home screen layout, or a layout that stores all installed apps separately which allows you to selectively set app shortcuts on your Home screen.

#### STYLE

**Wallpaper** Allows you to set your Home screen background (wallpaper). Select it from Gallery, Wallpaper gallery, Live wallpapers, and Photos.

**Screen swipe effect** Allows you to set the effect when you swipe to change screens.

#### LAYOUT

**Sort apps by** Allows you to set how to sort the apps on your Home screen (either alphabetically or by download date).

**Hide apps** Allows you to selectively hide apps.

#### TIPS

**Help** Displays information regarding the Home screen items and functions.

### Lock screen

#### SCREEN SECURITY

**Select screen lock** Allows you to set how to secure your phone from unintentional and/or unauthorized use.

**Smart Lock** Allows you to set trusted devices, places, faces, voices, and/or on-body detection that will allow your phone will remain unlocked.



## CUSTOMIZE

**Wallpaper** Allows you to set the background for your Lock screen.

**Shortcuts** Allows you to choose which apps to run on your Swipe Lock screen. This setting appears only when the Swipe lock type is selected.

**Contact info for lost phone** Allows you to set text to be displayed on the Lock screen to identify the phone's owner.

## LOCKTIME

**Security lock timer** Allows you to set the amount of time before the screen automatically locks after the backlight turns off (timeout due to inactivity).

**Power key instantly locks** Enable this option to instantly lock the screen when the **Power/Lock button** is pressed. This setting overrides the Security lock timer setting.



### Mini view

Tap its switch to toggle it On or Off. On will shrink the screen when you swipe left or right across the **Back button** ◀, **Home button** ○, and **Recent apps button** □. Shrinking the screen can make it easier to use the device with just one hand.



### Application manager

Tap an entry to view more information, tap **Stop** (or **Force stop**), then **OK** to stop the app from running.



### Storage & USB

#### DEVICE STORAGE

Displays the total amount of space used and the available space in your phone's internal memory in text and as a bar graph (unused space is gray). Tap **Internal storage** to see your apps and the amount of space they use.

#### PORTABLE STORAGE

**SD card** Displays the amount of space used and the total available space in your memory card. Tap **SD card** to view the data stored on it.



Allows you to eject (unmount) your microSD card.

To format the memory card, tap **SD card** > the **Menu icon** **:** > **Settings** > **Format**.

## **Battery**

### BATTERY INFORMATION

The current battery status is displayed including the percentage of remaining charge and charging state.

**Battery usage** Displays battery usage information including a graph and app usage details.

**Battery percentage on Status Bar** Enable this option to display the battery level as a percentage on the Status Bar next to the battery icon.

### BATTERY SAVER

**Battery saver** Enable this option to automatically turn Battery saver on when your battery level drops to the level you set. Tap **Battery saver** to adjust its settings.

**Help** Displays help information for the Battery saver feature.

## **Dual window**

Tap the switch at the top of its screen to toggle it On or Off.

**Auto-open** Enable this option to automatically open the Dual window feature when you tap a link on the full screen or tap an email image attachment.

**Help** Displays help information about using the Dual window feature.

## PERSONAL

The Personal category allows you to configure, manage, and secure your personal information.

### **Location**

Tap the switch at the top of its screen to toggle it On or Off. On enables sharing your location when you search for information and use location-based apps, such as Maps.

**Mode** Allows you to set how your location is established. This setting is gray if the Location switch is off.


### RECENT LOCATION REQUEST


Displays all of the apps that have requested access to your location. Tap one to view details.

### LOCATION SERVICES

**Camera** Enable this option to automatically tag photos and videos with their location as identified by your phone.

**Google Location History** Allows you to enable or disable Location History. When enabled, Google periodically stores and uses your phone's most recent location data in connection with your Google Account.

From the Location screen, tap the **Menu** icon  > **Scanning** to enable Wi-Fi scanning and/or Bluetooth scanning.

From the Location History screen, tap the **Menu** icon  to view and/or manage your location.

### **Fingerprints & security**

#### GENERAL

**Fingerprints** Allows you to set up fingerprint impressions that will unlock your phone's screen, allow access to content, and/or allow you to pay using your device.

**NOTE** If your phone doesn't have a default payment app, go to Play Store and search for available payment apps.

**Content lock** Allows you to set a lock type (password or pattern) for your Gallery and Capture+ files. Once set, you can change it and backup your account from here.

## ENCRYPTION

**Encrypt phone** By default, data is encrypted before saving on the device to protect the data. It is possible to read, write and copy data even when device encryption is set.

**Encrypt SD card** Allows you to encrypt or decrypt external microSD card data. Encrypted data is not accessible on other devices.

**Secure start-up** When you turn on the device, the screen is locked for security. Unlock the screen by entering the current unlock method, such as a Knock code, pattern, password or PIN. Until the screen is unlocked, you cannot receive most phone calls, text messages, alarms, notifications, and more.

- NOTES**
- If the password is entered incorrectly more than a specific number of times, the device will automatically factory reset. Be sure to remember the password.
  - If you forget your decryption password, you must factory reset the device to use it again. Resetting will delete all of the user data saved before the reset.

## SIM CARD LOCK

**Set up SIM card lock** Allows you to lock your SIM card with a PIN. After it's set, you can change it from here.

## PASSWORDS

**Password typing visible** Enable this option to briefly show each character of the password as you type it so you can see what you've entered.

## PHONE ADMINISTRATION

**Phone administrators** Allows you to view and selectively deactivate phone administrators.

**Unknown sources** Enable this option to allow installation of non-Play Store apps.

**Verify apps** Enable this option to disallow or warn before installation of apps that may cause harm to your phone.

## CREDENTIAL STORAGE

**Credential protection** Displays the current storage type.

**Certificate management** Allows you to manage your secure certificates.

**Trusted credentials** Shows system root CA certificates and user added CA certificates.

**Install from storage** Allows you to install a secure certificate from storage.


**Clear credentials** Deletes user added secure certificates and related credentials.

## ADVANCED SETTINGS

**Trust agents** Allows you to view and selectively deactivate Trust agents.

**Screen pin** Tap the switch at the top of its screen to toggle it On or Off. On allows only the current app to be used. This is helpful when allowing children to use your phone.

**Usage access for apps** Allows you to enable or disable the apps that can view your phone's app usage.

**Menu icon**  accesses **Memory**, **Show system**, **Reset app preferences**, and **Reset default apps**.

## **Accounts**

**Auto-sync data** Enable this option to automatically sync all accounts you've added on your phone.

## ACCOUNTS

Displays all of your added accounts. Tap one to view and/or manage (e.g., change details, access, sync settings, etc.) it.

**ADD ACCOUNT** Allows you to add accounts to your phone.

## **A** Language & input

**Language** Allows you to set the language for your phone's software.

**Language** Allows you to set the language for spelling check.

**Spelling correction** Tap its switch(icon) to toggle it On or Off. On allows you to check language spelling that you use.

**Google Spell checker** Allows you to set the google spell checker settings

**Look up contact names** Tap its switch(icon) to toggle it On or Off. On allows you to use spell checker entries from your contact list.

## KEYBOARD & INPUT METHODS

**Default** Displays the name of the current keyboard.

**Google Keyboard** Allows you to change the settings for the Google keyboard.

**LG Keyboard** Allows you to change the settings for the LG keyboard.

**Select languages** Allows you to set multiple keyboard languages to enter text.

**English** Displays the keyboard type for the selected language. Tap to change it.

## GENERAL

**Keyboard height and layout** Allows you to adjust various height and layout options for your keyboard to make it easier for you to use.

These options include **QWERTY layout**, **Extended keyboard**, **Keyboard height**, **Keyboard type in landscape**, **Split keyboard**, and **One-handed operation**.

**Keyboard theme** Allows you to set the keyboard color.

## ADVANCED

**Path input** Enable this option to enter a word by drawing a path through all of its letters.

**Word suggestions** Enable this option to show predicted words in the selection box as you type. Tap **Word suggestions** for additional options that include **Emoticons**, **Next word**, **Personal dictionary**, **Update word suggestions**, and **Clear suggestion history**.

**Auto-correction** Allows you to set your level of automatic word correction for each of your keyboard languages.

**More** Allows you to set other keyboard options to enhance your text input. Options include **Vibrate on keypress**, **Sound on keypress**, **Pop-up on keypress**, **Auto-capitalization**, **Auto-punctuation**, and **Touch and hold time**.

## TIPS

**Help** Displays information regarding text input.

**Google voice typing** Allows you to change the settings for voice input.

**Languages** Allows you to set the default language supported with Google voice typing and set additional recognized languages.

**“OK Google” detection** Allows you to set when saying “OK Google” will start a Google voice search. You can also personalize the Google voice model.

**Hands-free** Allows you to set which connected devices will allow voice requests when the device locked.

**Speech output** Allows you to set when to use speech output.

**Offline speech recognition** Allows you to manage downloaded languages.

**Block offensive words** Enable this setting to hide recognized offensive text.

**Bluetooth headset** Enable this setting to record audio through a connected Bluetooth headset.

## SPEECH

**Text-to-speech output** Allows you to set the preferred speech engine, speech rate, and pitch change. You can listen to an example and view the default language status.

## MOUSE/TRACKPAD

**Pointer speed** Allows you to set the pointer speed on a slide bar.

**Reverse buttons** Enable this option to reverse the mouse buttons to use the primary button on the right.

## Backup & reset

### LG BACKUP

**LG Backup** Allows you to copy data from a previous device to a new device. You can also back up data or restore data from a previous back up.

### GOOGLE BACKUP

**Back up my data** Enable this option to automatically backup your data to Google servers.

**Backup account** Allows you to identify which account(s) to backup. You can also add new accounts.

**Automatic restore** Enable this option to automatically restore your device to its previous state when you reinstall an app.

### RESET

**Network settings reset** Allows you to reset all of the network settings.

**Factory data reset** Allows you to erase all of the data on the phone. Read the warning, then tap **RESET PHONE**. Tap **Delete all** to confirm and reset the phone.

**Reset settings** Allows you to restore the default system settings.


## Google services

Allows you to manage your Google apps and account settings.



## SYSTEM

### **Shortcut key**

Tap the switch at the top of its screen to toggle it On or Off. On enables shortcuts activated by the Volume buttons . When this setting is enabled and the phone is locked or in timeout:

- ▶ Press the **Volume Up** button twice to open the **Capture+** app.
- ▶ Press the **Volume Down** button twice to launch the **Camera** app.

### **Date & time**

#### BASIC

Enable the **Auto-date & time** option or tap **Set date** and/or **Set time** to use a date/time other than the one provided by the network.

Enable the **Auto-time zone** option or tap **Select time zone** to use a time zone other than the one provided by the network.

#### TIME FORMAT

**Use 24-hour format** Enable this option to display the time using the 24-hour format (e.g., 13:00 instead of 1:00 PM).

### **Accessibility**

#### CATEGORIES

**Vision** Sets options for people with impaired sight.

**TalkBack** Enable this option to hear verbal feedback when you tap the screen. To select an item, tap it, then double-tap it. To scroll, use three fingers to swipe across the screen. Tap **TalkBack** to access and adjust the TalkBack settings.

**Message/call voice notifications** Enable this option to set your phone to automatically read your incoming calls and/or messages outloud. Tap **Message/call voice notifications** to modify your notification settings for Calls, Messages, Read messages, and Message/call voice notifications language.

**Font size** Allows you to set the size of the text.

**Bold text** Enable this option to bold the text on the screen.

**Touch zoom** Enable this option to allow you to triple-tap the screen to zoom in and out.

**Screen color inversion** Enable this option to invert the screen colors for higher contrast.

**Grayscale** Enable this option to switch the screen to grayscale mode.

**End calls with the Power key** Enable this option to allow you to press the **Power/Lock button** to end a call.

**Hearing** Sets options for people with impaired hearing.

**Captions** Enable this option to allow your phone to display caption text. Tap **Captions** to access and adjust its settings.

**Notification light** Enable this option to activate the LED light for the notifications you select. Tap **Notification light** to set the notifications you want.

**Flash alerts** Enable this option to enable the camera's flash to blink to notify you of incoming calls, messages, and alarms. Tap **Flash alerts** to access the missed alert setting.


**Turn off all sounds** Enable this option to silence all phone sounds and lower the volume from the earpiece.

**Audio type** Allows you to set the audio type.

**Sound balance** Move the slider on the bar to set the sound balance between the left and right channel.

**Dexterity and interaction** Sets options for people with impaired motor skills.

## DEXTERITY

**Touch assistant** Enable this option to display a Touch assistant icon  which allows you to use its touch icons instead of the phone's hardware keys.

**Touch and hold delay** Allows you to set the touch and hold delay time.


**Touch and hold for calls** Enable this option to allow you to touch and hold the Answer or Ignore icon on the Incoming call screen (instead of swiping).

**Screen timeout** Allows you to set the amount of time before the backlight turns off automatically.

## INTERACTION

**Touch control areas** Enable this option to allow you to restrict access to a select portion of the screen.

## GENERAL

**Accessibility features shortcut** Enable this option to allow quick, easy access to selected features when you triple-tap the **Home button** . Tap **Accessibility features shortcut** to set the features you want.

**Auto-rotate screen** Enable this option to automatically rotate the screen based on the phone's orientation.

## SERVICES

**Support & Protection** Tap the switch at the top of its screen to toggle it On or Off. On allows you to enable Support & Protection to observe the apps your device uses to protect against web threats.

**Switch Access** Tap the switch at the top of its screen to toggle it On or Off. On allows you to enable switch access to selected features. Tap **OK**, then tap **SETTINGS** to set it up.

### **Quick Cover View**

Tap the switch at the top of its screen to toggle it On or Off. Enabling the Quick cover setting allows you to answer calls and stop the alarm/timer when the cover is closed. In addition, you can also see weather, notifications, and more without the cover open.

 **Pen**

Use the Pen settings to configure option when the pen is removed.

**PEN**

**Open when removed** Select a feature that will automatically start when the pen is removed from the device. These features include **Pen Pop** and **Pop Memo**.

**App shortcut** Set frequently used apps.

**Screen-off Memo:** Create notes on the turned-off screen when the pen is removed.

**ALERTS**

**Pen detection:** Be notified by sound or vibration when the pen is removed or inserted.

**Pen Keeper:** Be notified by sound or visual notification when the device is moved with the pen removed.

 **About phone**

View information about your phone including **Phone name**, **Network**, **Status**, **Battery**, **Hardware info**, **Software info**, **Legal info**, and **Patent information**.

 **System updates****SYSTEM UPDATE INFO**

**Check for new system update** Allows you to check for any available updates for your phone.

**Show system update history** Allows you to view your system update history.

**LAST SYSTEM UPDATE** Displays your last update information.

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

**Call (800) 243-0000 for more information.**

***Wash hands after handling.***

## **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.

This mobile phone has a Hearing Aid Mode that, when activated, may reduce interference with some hearing aid models.

## **FCC RF Exposure Information**

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

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

### **Body-worn Operation**

This device was tested for typical body-worn operations with the back of the phone kept 0.39 inches (1 cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1 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. Body-worn accessories that cannot maintain 0.39 inches (1 cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

### **Part 15.19 statement**

This device complies with part 15 of the 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 to radio 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:

- 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.

The phone by LG operates on Verizon's 4G LTE network, based on Long Term Evolution (LTE) technology and Mobile Broadband 4G networks in the United States\*. Now you can connect easily at high speeds to the Internet, your corporate Intranet, and your email while you're away from the office.

\* Service not available everywhere. Visit website ([VerizonWireless.com/4G](http://VerizonWireless.com/4G)) for a complete list of available areas.

\* Information subject to change.

## **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 the 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](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins) or visit the Cellular Telecommunications Industry Association website at [http://www.ctia.org/consumer\\_info/index.cfm/AID/10371](http://www.ctia.org/consumer_info/index.cfm/AID/10371). You may also wish to contact the manufacturer of your phone.

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

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

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

The FDA/FCC website states that "the scientific evidence does not show a danger to users of wireless communication devices, including children."

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

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

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

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

FDA Consumer magazine November-December 2000

Telephone: (888) INFO-FDA

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

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

445 12th Street, S.W. Washington, D.C. 20554

Telephone: (888) 225-5322

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

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

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

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

283 Sparks Street Ottawa, Ontario K1R 7X9 Canada

Telephone: (613) 991-6990

[http://www.rsc.ca/index.php?page=Expert\\_Panels\\_RF&Lang\\_id=120](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.

While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ea/fccid> after searching on FCC ID [ZNFVS995](#).

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.

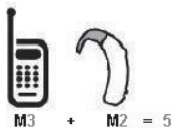
The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

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 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled.

T-Ratings: Phones rated T3 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled.

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](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 noisecancelling 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 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)

### Phone Operation

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

## Tips on Efficient Operation

For your phone to operate most efficiently:

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.

## 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.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per CTIA Certification Requirements for Battery System Compliance to IEEE1725. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard. Only authorized service providers shall replace battery (if the battery is non-user replaceable).
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.

- Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.

### **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 for the specified charger to learn how to charge it.
- 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.
- The charging temperature range is regulated between 32°F (0°C) and 95°F (35°C). Do not charge the battery outside of the recommended temperature range. Charging outside this range might cause excessive heat generation, serious battery damage, and deterioration of battery's characteristics and cycle life.
- Do not use or leave the phone in direct sunlight or in a car heated by sunshine. The battery may generate excessive heat, smoke, or flame. It also might cause deterioration of battery's characteristics or cycle life.
- If skin or clothing 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 charging. It may cause an electric shock or seriously damage your phone.
- Do not place or answer calls while charging the phone as it may shortcircuit the phone and/or cause electric shock or fire.
- The charger and adapter are intended for indoor use only.
- Insert the battery charger horizontally into the wall power socket.
- Talking on your phone for an extended period of time may reduce call quality due to heat generated during use.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone as this could cause a fire.
- Do not place or answer calls while charging the phone as it may shortcircuit the phone and/or cause electric shock or fire.

### **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. If the phone is expose to liquid, turn it off immediately and bring 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.

## 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 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.

## 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>)

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 voice mail 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 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.

### Laser Safety Statement

#### CDRH Compliance

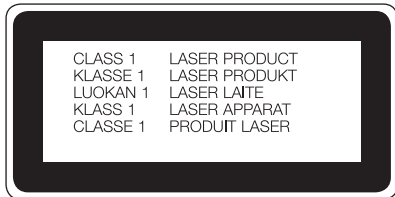
THIS PRODUCT COMPLIES WITH APPLICABLE REQUIREMENT OF THE DHHS PERFORMANCE STANDARD FOR LASER PRODUCT, 21 CFR SUBCHAPTER J.

#### Caution!

This product employs a laser system. To ensure proper use of this product, please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service center.

Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

To prevent direct exposure to laser beam, do not try to open the enclosure or make direct contact with the laser.



## Cautions

- ▶ The user interface of Google apps (Google Search, Google Maps, Navigation, etc.) can vary depending on its software version.
- ▶ Locations are inaccurate when GPS and Wi-Fi are not set.
- ▶ With the Android operating system, some available Play Store apps only operate correctly with phones that have a specific screen resolution. Please be advised that some of the apps on Play Store may not be available for your phone due to an LCD resolution requirement that doesn't match your phone. In addition, please be aware that third party apps with programming defects may cause issues with your phone, including lock ups and resets.
- ▶ All of the phone's contents, including content which you create or download, will be deleted after a Factory Reset.

# CE0168!

- ▶ Use your phone in temperatures between 0°C and 35°C, if possible. Exposing your phone to extremely low or high temperatures may result in damage, malfunction, or even explosion.
- ▶ There is risk of explosion if the battery is replaced with an incorrect type.
- ▶ Dispose of used batteries according to the manufacturer's instructions. Please recycle when possible. Don't dispose as household waste.

### Wi-Fi (WLAN)

This equipment may be operated in all European countries.

The 5150 - 5350 MHz band is restricted to indoor use only.



To prevent possible hearing damage, don't listen at high volume levels for long periods.

- ▶ Excessive sound pressure from earphones and headphones can cause hearing loss.

## DECLARATION OF CONFORMITY

Hereby, **LG Electronics** declares that this LGVS995 product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the Declaration of Conformity can be found at <http://www.lg.com/global/declaration>

### Exposure to radio frequency energy

Radio wave exposure and Specific Absorption Rate (SAR) information.

This mobile phone model LGVS995 has been designed to comply with applicable safety requirements for exposure to radio waves. These requirements are based on scientific guidelines that include safety margins designed to assure the safety of all persons, regardless of age and health.

- ▶ The radio wave exposure guidelines employ a unit of measurement known as the Specific Absorption Rate (SAR). Tests for SAR are conducted using standardized methods with the phone transmitting at its highest certified power level in all used frequency bands.
- ▶ While there may be differences between the SAR levels of various LG phone models, they're all designed to meet the relevant guidelines for exposure to radio waves.
- ▶ The SAR limit recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) is 2 W/kg averaged over 10g of tissue.
- ▶ This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 0.5 cm away from the body. When a carry case, belt clip or holder is used for bodyworn operation, it shouldn't contain metal and should position the product at least 0.5 cm away from your body. In order to transmit data files or messages, this device requires a quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure the above separation distance instructions are followed until the transmission is completed.

## Open Source Software

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](mailto:opensource@lge.com). This offer is valid for three (3) years from the date on which you purchased the product.


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Please check to see if any issues you've encountered with your phone are described in this section, before taking the phone in for service or calling a service representative.




| CATEGORY        | SUB-CATEGORY      | QUESTION   | ANSWER  |
|-----------------|-------------------|--|---|
| Bluetooth       | Bluetooth Devices | What are the functions available via Bluetooth?                  | Stereo/Mono Headset, Car Kit, and FTP connections are available. When your phone is connected to another phone via Bluetooth, you can receive Contacts data. You can share data with other Bluetooth devices when you run a corresponding app.                                |
| Data            | Contacts Backup   | How can I back up Contacts?                                      | The Contacts data can be synchronized between your phone and Gmail™.  |
| Data            | Synchronization   | Is it possible to set up one-way-sync with Gmail?                | Only two-way synchronization is available.  |
| Data            | Synchronization   | Is it possible to synchronize all of the Email folders?          | All of your Email folders are synchronized. From the <b>Email</b> app, tap the <b>Email Menu</b> icon  then tap the desired folder or <b>Show all folders</b> to view all available folders. |
| Google™ Service | Gmail Log-In      | Should I have to log into Gmail whenever I want to access Gmail? | Once you log into Gmail, you don't need to log into Gmail again.  |
| Google Service  | Google Account    | Is it possible to filter emails?                                 | No, email filtering is not supported via the phone.   |
| Phone Function  | YouTube™          | Is it possible to play YouTube videos?                           | Yes, YouTube videos are supported but may have to be viewed through the <b>YouTube</b> app (instead of the <b>Chrome</b> app).  |


| CATEGORY       | SUB-CATEGORY    | QUESTION   | ANSWER   |
|----------------|-----------------|--|--|
| Phone Function | Email           | What happens when I access another app while writing an email?                     | Your email is automatically saved as a draft when you access another app. It's still displayed when you return to Email, until you close the <b>Email</b> app. When you open the <b>Email</b> app again, from your Inbox, tap the Email <b>Menu</b> icon  > <b>Drafts</b> to access it.   |
| Phone Function | Ringtone        | Is there a file size limitation for when I want to use an .MP3 file as a ringtone? | There's no file size limitation.   |
| Phone Function | Navigation      | Is it possible to install another navigation app on my phone?                      | Any app that's available on Play Store and is compatible with the hardware can be installed and used.  |
| Phone Function | Synchronization | Is it possible to synchronize my contacts from all of my email accounts?           | Only Gmail and MS Exchange server (Company Email Server) contacts can be synchronized.   |
| Phone Function | Wait and Pause  | Why don't my phone numbers with Wait and Pause work?                               | <p>If you transferred a contact with the Wait and Pause functions saved into the number, you'll need to re-save each number to use these features.</p> <p><b>To re-save numbers with Wait and Pause</b></p> <ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Phone</b> icon  and select the <b>Dial</b> tab.</li> <li>2. Dial the number, then tap the <b>Options</b> icon .</li> <li>3. Tap <b>Add 2-sec pause</b> or <b>Add wait</b>, enter the remaining numbers, then tap <b>Update contact</b> to save the number for the Contact.</li> </ol> |

| CATEGORY       | SUB-CATEGORY   | QUESTION                                 | ANSWER  |
|----------------|----------------|--|---|
| Phone Function | Security       | What are the phone's security functions? | <p>You can set the phone to require the entry of an unlock sequence (Knock Code, pattern, PIN, or password) before the phone can be accessed or used.</p> <p>As an added anti-theft measure, add your Google Account on your phone which will embed it in the setup process. If a factory reset is performed, your phone will not finish the setup process until your embedded Google Account and password are entered again. Don't forget your Google Account information because if you can't provide it after a factory reset, you won't be able to use your phone at all.</p> |
| Phone Function | Unlock Pattern | How do I create the unlock Pattern?      | <ol style="list-style-type: none"><li>1. From the Home screen, touch and hold the <b>Recent apps button</b> .</li><li>2. Tap <b>Lock screen settings</b>.</li><li>3. Tap <b>Select screen lock</b>.</li><li>4. Tap <b>Pattern</b>. The first time you do this, a short tutorial about creating an unlock pattern appears.</li><li>5. Set up by drawing your pattern once, tap <b>NEXT</b>, draw it again, then tap <b>CONFIRM</b>.</li></ol>   |



| CATEGORY       | SUB-CATEGORY     | QUESTION                               | ANSWER   |
|----------------|------------------|--|--|
| Phone Function | Speed Dial       | Is Speed Dialing supported?            | <p>Yes. You can set Speed Dials as well as save a contact directly on your Home screen.</p> <p><b>To set a Speed Dial:</b></p> <ol style="list-style-type: none"> <li>1. Open the <b>Contacts</b> app.</li> <li>2. Tap the <b>Options</b> icon  &gt; <b>Speed dial</b>.</li> <li>3. Tap the speed dial location and select the desired contact.</li> </ol> <p><b>NOTE</b> You can also tap the <b>Speed dial</b> icon  next to the number in a contact's entry, then select the speed dial you want to set.</p> <p><b>To set a Direct Dial shortcut to your Home screen:</b></p> <ol style="list-style-type: none"> <li>1. Touch and hold an empty area on your Home screen, then tap the <b>Widgets</b> icon .</li> <li>2. Touch and hold the <b>Direct dial</b>, then drag it where you want it placed.</li> <li>3. Tap the contact in your Contacts list.</li> </ol> |
| Phone Function | Memory           | Will I know when my memory is full?    | Yes, you'll receive a notification.  |
| Phone Function | Language Support | Is it possible to change the language? | <p>The phone has multi-lingual capabilities.</p> <p><b>To change the language:</b></p> <ol style="list-style-type: none"> <li>1. From the Home screen, touch and hold the <b>Recent apps button</b>  &gt; <b>Settings</b>.</li> <li>2. Tap <b>Language &amp; input</b> &gt; <b>Language</b>.</li> <li>3. Tap the desired language.</li> </ol> <p><b>NOTE</b> To set multiple languages for your on-screen keyboard, from the Language &amp; input screen, tap <b>LG Keyboard</b>, tap <b>Select languages</b>, then checkmark the languages you want to be able to type.</p>  |

| CATEGORY       | SUB-CATEGORY     | QUESTION  | ANSWER   |
|----------------|------------------|---|--|
| Phone Function | Language Support | Which languages are supported when using Play Store?  | The <b>Play Store</b> app supports English and Spanish. Third party apps may not support all languages.  |
| Phone Function | VPN              | How do I set up a VPN?  | VPN access configuration is different according to each company. To configure VPN access from your phone, you must obtain the details from your company's network administrator.   |
| Phone Function | Screen Time Out  | My screen turns off after only 30 seconds. How can I change the amount of time for the backlight to turn off? | <ol style="list-style-type: none"> <li>1. From the Home screen, touch and hold the <b>Recent apps button</b> .</li> <li>2. Tap <b>Settings &gt; Display &gt; Screen timeout</b>.</li> <li>3. Tap the preferred screen backlight timeout time.</li> </ol>  |
| Phone Function | Wi-Fi and 4G     | When Wi-Fi and 4G are both available, which service will my phone use?  | <p>When using data, your phone may default to the Wi-Fi connection (if Wi-Fi connectivity on your phone is set to On). However, there will be no notification when your phone switches from one to the other.</p> <p>To know which data connection is being used, check the 4G  or Wi-Fi icon  in the Status Bar at the top of your screen.</p> |
| Phone Function | Home Screen      | Is it possible to remove an app from the Home screen?   | No. Apps can't be removed from the Home screen, but you can uninstall apps that you've downloaded to your phone to remove them. Just touch and hold the downloaded app icon until the Uninstall bar appears at the top of the screen. Then, without lifting your finger, drag the icon to the Remove bar, then lift your finger.   |

| CATEGORY          | SUB-CATEGORY | QUESTION   | ANSWER   |
|-------------------|--------------|--|--|
| Phone Function    | Application  | I downloaded an app and it causes a lot of errors. How do I remove it?             | <ol style="list-style-type: none"> <li>1. From the Home screen, touch and hold the <b>Recent apps button</b> .</li> <li>2. Tap <b>Settings &gt; Application manager</b>.</li> <li>3. Tap the app &gt; <b>Uninstall</b>.</li> </ol> <p><b>NOTE</b> You can also touch and hold the app, then drag it to the Uninstall bar at the top of the screen.</p>  |
| Phone Function    | Ringtones    | Can I use music files for my ringtones?  | <p>Yes. After saving a music file as a ringtone, you can use it anywhere you can set ringtones as an alert.</p> <p><b>To save a music file as a ringtone:</b></p> <p>Touch and hold a song in a library list. In the context menu that opens, tap <b>Set as ringtone</b>, then tap <b>Phone ringtone</b>. The added ringtone becomes your default ringtone.</p> <p><b>NOTE</b> If you tap <b>Caller ringtones</b> instead, you can set the selected song for a specific contact.</p> |
| Phone Function    | Alarm        | Will my alarm be audible or will it go off if the phone is turned off?             | No, that functionality isn't supported.  |
| Phone Function    | Alarm        | If my ringer volume is set to <b>Off</b> or <b>Vibrate</b> , will I hear my alarm? | Your alarm is programmed to be audible even in these scenarios.  |
| Recovery Solution | Power Reset  | The phone is locked-up and does not function. How can I reset it?                  | In the case of a malfunction or lock up error, press and hold the Volume Down button and the <b>Power/Lock button</b> at same time for about 11 seconds until device reset.  |

ARBITRATION NOTICE: THIS LIMITED WARRANTY CONTAINS AN ARBITRATION PROVISION THAT REQUIRES YOU AND LG TO RESOLVE DISPUTES BY BINDING ARBITRATION INSTEAD OF IN COURT, UNLESS YOU CHOOSE TO OPT OUT. IN ARBITRATION, CLASS ACTIONS AND JURY TRIALS ARE NOT PERMITTED. PLEASE SEE THE SECTION TITLED "PROCEDURE FOR RESOLVING DISPUTES" BELOW.

### **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.]

### **1. WHAT THIS WARRANTY COVERS:**

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

- (1) The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.

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

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

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- (5) Products which have had the serial number removed or made illegible.

- (6) This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.
- (7) Damage resulting from use of non LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.
- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

### **3. WHAT LG WILL DO:**

LG will, at its sole option, either repair, replace or refund the purchase price of any unit that does not conform to 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, 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 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:**

If you experience any problems with either the Bluetooth headset or the mobile handset, in each case as may be covered by this limited warranty, you need only return the affected device. For example, if a problem exists with the Bluetooth headset, please **DO NOT** return your mobile handset with the headset. Likewise, if a problem exists with the mobile handset, please **DO NOT** return the Bluetooth Headset with the handset.

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://www.lg.com/us/support> 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.

**PROCEDURE FOR RESOLVING DISPUTES:**

ALL DISPUTES BETWEEN YOU AND LG ARISING OUT OF OR RELATING IN ANY WAY TO THIS LIMITED WARRANTY OR THE PRODUCT SHALL BE RESOLVED EXCLUSIVELY THROUGH BINDING ARBITRATION, AND NOT IN A COURT OF GENERAL JURISDICTION. BINDING ARBITRATION MEANS THAT YOU AND LG ARE EACH WAIVING THE RIGHT TO A JURY TRIAL AND TO BRING OR PARTICIPATE IN A CLASS ACTION.

Definitions. For the purposes of this section, references to “LG” mean LG Electronics MobileComm U.S.A., Inc., its parents, subsidiaries and affiliates, and each of their officers, directors, employees, agents, beneficiaries, predecessors in interest, successors, assigns and suppliers; references to “dispute” or “claim” shall include any dispute, claim or controversy of any kind whatsoever (whether based in contract, tort, statute, regulation, ordinance, fraud, misrepresentation or any other legal or equitable theory) arising out of or relating in any way to the sale, condition or performance of the product or this Limited Warranty.

Agreement to Binding Arbitration and Class Action Waiver. You and LG agree to resolve any claims between us only by binding arbitration on an individual basis, unless you opt out as provided below. Any dispute between you and LG shall not be combined or consolidated with a dispute involving any other person’s or entity’s product or claim. More specifically, without limitation of the foregoing, any dispute between you and LG shall not under any circumstances proceed as part of a class or representative action. Instead of arbitration, either party may bring an individual action in small claims court, but that small claims court action may not be brought on a class or representative basis.

Arbitration Rules and Procedures. To begin arbitration of a claim, either you or LG must make a written demand for arbitration. The arbitration will be administered by the American Arbitration Association (AAA) and will be conducted before a single arbitrator under the AAA’s Consumer Arbitration Rules that are in effect at the time the arbitration is



initiated (referred to as the "AAA Rules") and under the procedures set forth in this section. The AAA Rules are available online at [www.adr.org/consumer](http://www.adr.org/consumer). Send a copy of your written demand for arbitration, as well as a copy of this provision, to the AAA in the manner described in the AAA Rules. You must also send a copy of your written demand to LG at LG Electronics, USA, Inc. Attn: Legal Department-Arbitration 1000 Sylvan Avenue Englewood Cliffs, NJ 07632. If there is a conflict between the AAA Rules and the rules set forth in this section, the rules set forth in this section will govern. This arbitration provision is governed by the Federal Arbitration Act. Judgment may be entered on the arbitrator's award in any court of competent jurisdiction. All issues are for the arbitrator to decide, except that issues relating to the scope and enforceability of the arbitration provision and to the arbitrability of the dispute are for the court to decide. The arbitrator is bound by the terms of this provision.

Governing Law: The law of the state of your residence shall govern this Limited Warranty and any disputes between us except to the extent that such law is preempted by or inconsistent with applicable federal law.

**Fees/Costs.** You do not need to pay any fee to begin an arbitration. Upon receipt of your written demand for arbitration, LG will promptly pay all arbitration filing fees to the AAA unless you seek more than \$25,000 in damages, in which case the payment of these fees will be governed by the AAA Rules. Except as otherwise provided for herein, LG will pay all AAA filing, administration and arbitrator fees for any arbitration initiated in accordance with the AAA Rules and this arbitration provision. If you prevail in the arbitration, LG will pay your reasonable attorneys' fees and expenses to the extent required by applicable law. If the arbitrator finds either the substance of your claim or the relief sought in the demand is frivolous or brought for an improper purpose (as measured by the standards set forth in Federal Rule of Civil Procedure 11(b)), then the payment of all arbitration fees will be governed by the AAA Rules. In such a situation, you agree to reimburse LG for all monies previously disbursed by it that are otherwise your obligation to pay under the AAA

Rules. Except as otherwise provided for, LG waives any rights it may have to seek attorneys' fees and expenses from you if LG prevails in the arbitration.

Hearings and Location. If your claim is for \$25,000 or less, you may choose to have the arbitration conducted solely on the basis of (1) documents submitted to the arbitrator, (2) through a telephonic hearing, or (3) by an in-person hearing as established by the AAA Rules. If your claim exceeds \$25,000, the right to a hearing will be determined by the AAA Rules. Any in-person arbitration hearings will be held at a location within the federal judicial district in which you reside unless we both agree to another location or we agree to a telephonic arbitration.

Opt Out. You may opt out of this dispute resolution procedure. If you opt out, neither you nor LG can require the other to participate in an arbitration proceeding. To opt out, you must send notice to LG no later than 30 calendar days from the date of the first consumer purchaser's purchase of the product by either: (i) sending an e-mail to [optout@lge.com](mailto:optout@lge.com), with the subject line: "Arbitration Opt Out" or (ii) calling 1-800-980-2973. You must include in the opt out e-mail or provide by telephone: (a) your name and address; (b) the date on which the product was purchased; (c) the product model name or model number; and (d) the IMEI or MEID or Serial Number, as applicable (the IMEI or MEID or Serial Number can be found (i) on the product box; (ii) on a label on the back of the product beneath the battery, if the battery is removable; or (iii) from the settings menu via the following path: Settings > About phone > Status). You may only opt out of the dispute resolution procedure in the manner described above (that is, by e-mail or telephone); no other form of notice will be effective to opt out of this dispute resolution procedure. Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and you will continue to enjoy the full benefits of the Limited Warranty. If you keep this product and do not opt out, then you accept all terms and conditions of the arbitration provision described above.

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