LG

Life's Good

USER GUIDE

LG Escape 2™

LG-H443

BC

www.lg.com

- Some of the contents in this manual may differ from your phone depending on the software version of the phone, OS version or your service provider, and are subject to change without prior notice.
- Always use genuine LG accessories. The supplied items are designed only for this device and may not be compatible with other devices.
- This device is not suitable for people who have a visual impairment due to the touchscreen keyboard.
- All screen shots in this guide are simulated.
- Actual displays and the color of the phone may vary.

LIMITED WARRANTY STATEMENT

1. WHAT THIS WARRANTY COVERS:

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

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

(2) The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.

(3) This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.

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

(5) Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.

(6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

2. WHAT THIS WARRANTY DOES NOT COVER:

(1) Defects or damages resulting from use of the product in other than its normal and customary manner.

(2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts

LIMITED WARRANTY STATEMENT

which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.

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

(4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.

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

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

(7) Damage resulting from use of non LG approved accessories.

(8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.

(9) Products operated outside published maximum ratings.

(10) Products used or obtained in a rental program.

(11) Consumables (such as fuses).

3. WHAT LG WILL DO:

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

4. STATE LAW RIGHTS:

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

5. HOW TO GET WARRANTY SERVICE:

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

Tel. 1-800-793-8896 or Fax. 1-800-448-4026

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

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

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

LIMITED WARRANTY STATEMENT

7.11 Warranty Laws

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

▶ The California Song-Beverly Consumer Warranty Act [CC §§1790 et seq],

▶ The California Uniform Commercial Code, Division Two [Com C §§2101 et seq], and

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

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

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

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Important Notice

Please read this before you start using your phone!

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

1. Phone memory

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

To uninstall applications:

1 Tap ◯ > ⊕ > ⚙ > **General** tab > **Apps**.
2 Once all applications appear, scroll to and select the application you want to uninstall.
3 Tap **Uninstall** > **OK**.

2. Optimizing battery life

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

Extending your phone's battery life:

- Turn off radio communications when you are not using. If you are not using Wi-Fi, Bluetooth or GPS, turn them off.
- Reduce screen brightness and set a shorter screen timeout.

- Turn off automatic syncing for Gmail, Calendar, Contacts and other applications.
- Some applications you download may consume battery power.
- While using downloaded applications, check the battery charge level.

3. Before installing an open source application and OS

⚠ WARNING

▶ If you install and use an OS other than the one provided by the manufacturer it may cause your phone to malfunction. In addition, your phone will no longer be covered by the warranty.

▶ To protect your phone and personal data, only download applications from trusted sources, such as Play Store™. If there are improperly installed applications on your phone, the phone may not work normally or a serious error may occur. You must uninstall those applications and all associated data and settings from the phone.

4. Using the Hard Reset (Factory Reset)

If your phone does not restore to its original condition, use a Hard Reset (Factory Reset) to initialize it.

1 Turn the power off.

2 Press and hold the **Power/Lock Key + Volume Down Key** on the back of the phone.

3 Release the **Power/Lock Key** only when the boot logo is displayed, then immediately press and hold the **Power/Lock Key** again.

4 Release all keys when the Factory reset screen is displayed.

5 Press the **Volume Keys** to highlight **Yes**, then press the **Power/Lock Key** to continue.

6 Press the **Volume Keys** to highlight **Yes** once more, then press the **Power/Lock Key** to confirm.

⚠ WARNING

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

5. Opening and switching applications

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

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

6. If the screen freezes

If the screen freezes or the phone does not respond when you try to operate it, remove the battery and reinsert it. Then power the phone back on.

Getting to know your phone

Front view

Microphone

Headset Jack

Earpiece

Proximity Sensor

Front Camera Lens
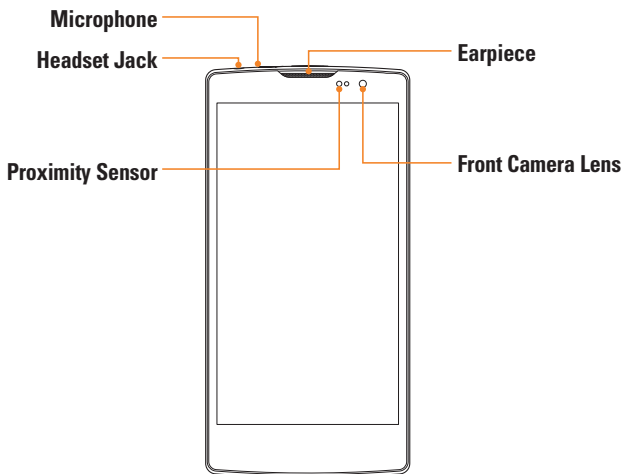
❶ NOTE: Proximity sensor

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

❶ WARNING

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

Rear Camera Lens

Flash

Power/Lock Key

Volume Keys

NFC Touch Point

Speaker

Charger/USB port

Microphone
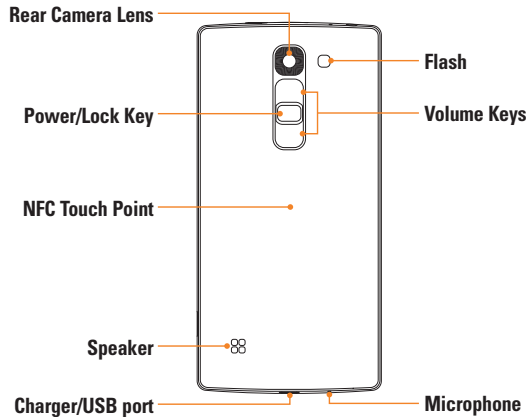
Power/Lock Key	• Turn your phone on/off by pressing and holding this key.
	• Press once quickly to lock/unlock the screen.
Volume Keys	**While the screen is off:**
	• Press and hold the Volume Up Key to launch QuickMemo+.
	• Press and hold the Volume Down Key to launch the camera.
	While the screen is on:
	• From the Home screen, press to change the ringer type.
	• While listening to music or on a call, press to adjust the volume.

⚠ WARNING

▶ The NFC antenna for this model is on the back cover.

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

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Installing the SIM or USIM card and battery

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

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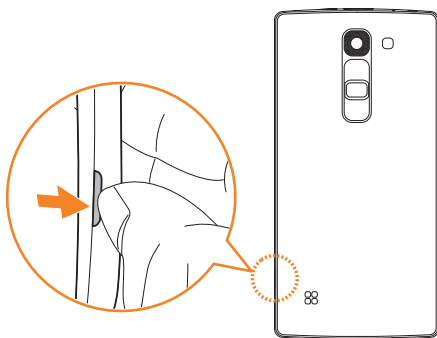
2 Slide the SIM card into the lower slot for the SIM card as shown in the figure. Make sure the gold contact area on the card is facing downward.
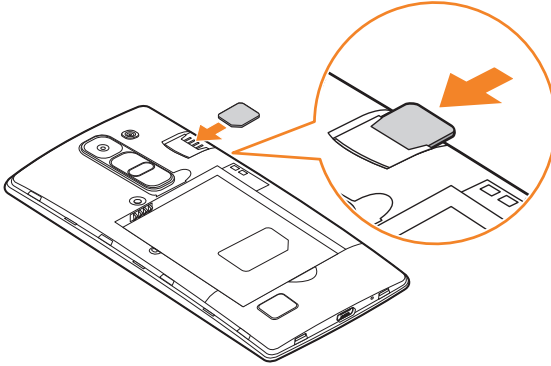
⚠ WARNING

▶ Do not insert a memory card into the SIM card slot. If a memory card happens to be lodged in the SIM card slot, take the device to a LG Service Center to remove the memory card.

⚠ NOTE:

▶ Only microSIM cards work with this device.

3 Insert the battery.

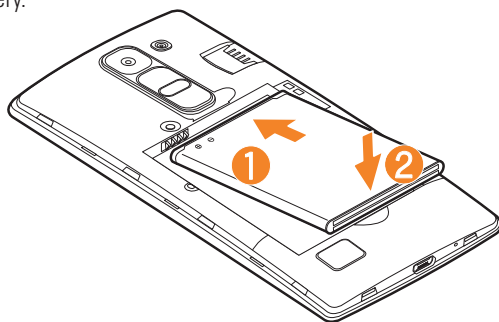**4** To replace the cover onto the device, align the back cover over the battery compartment
❶ and press it down until it clicks into place ❷.
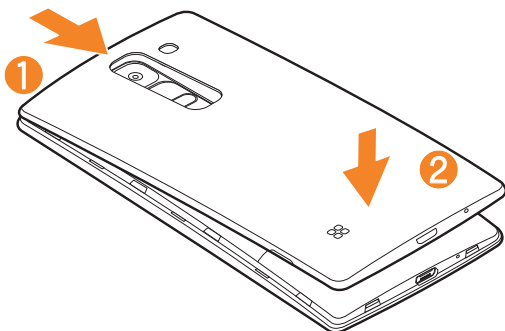
Charging the battery

Charge the battery before using it for first time. Use the charger to charge the battery. A computer can also be used to charge the battery by connecting the phone to it using the USB cable.

⚠ WARNING

▶ Use only LG-approved chargers, batteries and cables. If you use unapproved chargers, batteries or cables, it may cause a battery charging delay. This can also cause the battery to explode or damage the device, which is not covered by the warranty.

The Charger/USB Port is located at the bottom of the phone. Insert the charger and plug it into a power outlet.
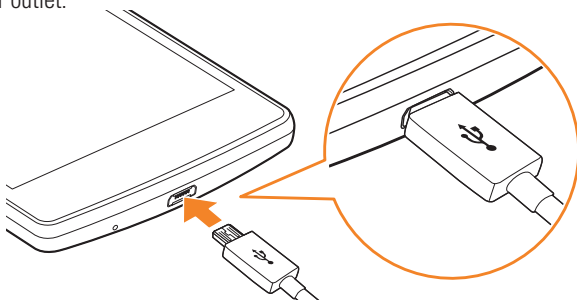
⚠ NOTE:

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

Inserting a memory card

Your device supports up to a 32GB microSD card. Depending on the memory card manufacturer and type, some memory cards may not be compatible with your device.

⚠ WARNING

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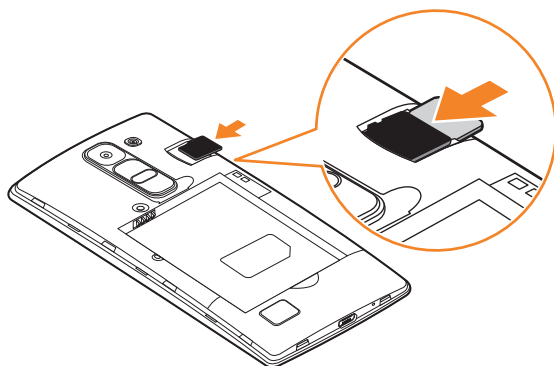
⚠ NOTE:

▶ Frequent writing and erasing of data shortens the lifespan of memory cards.

1 Remove the back cover.

2 Insert a memory card with the gold-colored contacts facing downwards.

3 Replace the back cover.

Removing the memory card

Before removing the memory card, first unmount it for safe removal.

1 Tap ○ > ⊕ > ⚙ > **General** tab > **Storage** > **Unmount SD card**.

2 Remove the back cover and pull out the memory card.

❶ WARNING

▶ Do not remove the memory card while the device is transferring or accessing information. Doing so can cause data to be lost or corrupted or damage to the memory card or device. LG is not responsible for losses that result from the misuse of damaged memory cards, including the loss of data.

Locking and unlocking the device

Pressing the **Power/Lock Key** turns off the screen and puts the device into lock mode. The device automatically gets locked if it is not used for a specified period. This helps to prevent accidental taps and saves battery power.

To unlock the device, press the **Power/Lock Key** and swipe the screen in any direction.

❶ NOTE:

▶ Double-tapping on the screen also can wake up the screen instead of the **Power/ Lock Key**.

Changing the screen lock method

You can change the way that you lock the screen to prevent others accessing your personal information.

1 Tap ○ > ⊕ > ⚙ > **Display** tab > **Lock screen** > **Select screen lock**.
2 Select a desired screen lock from **Knock Code**, **Pattern**, **PIN** and **Password**.

ⓘ NOTE:

▶ Create or sign in to a Google account before setting an screen lock and remember the backup PIN you created when creating your screen lock.

ⓘ Caution!

▶ If you haven't created or signed in to a Google account on the phone and you forgot your PIN, Password, and the backup PIN, you need to perform a hard reset. Performing a hard reset deletes all user applications and user data. Please remember to back up any important data before performing a hard reset.

ⓘ TIP! Smart Lock

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

▶ **Setting up Smart Lock**
   1 Tap ○ > ⊕ > ⚙ .
   2 Tap **Display** tab > **Lock screen** > **Smart Lock**.
   3 Before you add any trusted devices, trusted places, or trusted face, you need to set up a screen lock (pattern, PIN, or password).

Your Home screen

Touch screen tips

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

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

❶ NOTE:

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

▶ Use the tip of your finger to tap the option you want. Be careful not to tap any other buttons.

Home screen

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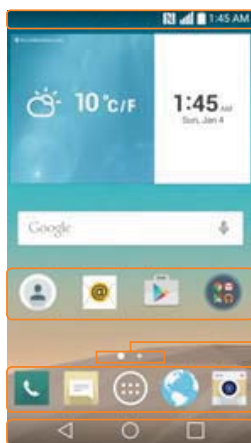
❶ **Status Bar**

❷ **Application Icons**

❸ **Location Indicator**

❹ **Quick Button Area**

❺ **Home Touch Buttons**

❶ Shows the phone's status information, including the time, signal strength, battery status and notification icons.

❷ Tap an icon (application, folder, etc.) to open and use it.

❸ Indicates which Home screen canvas you are currently viewing.

❹ Provides one-touch access to the function from any Home screen canvas.

⑤	◁ **Back Button**	Returns to the previous screen. Also closes pop-up items, such as menus, dialog boxes and the on-screen keyboard.
	○ **Home Button**	Return to the Home screen from any screen. Touch and hold to access Google Now.
	▢ **Recent Apps Button**	Displays recently used applications. If you touch and hold this button, it opens a menu of available options.

Extended Home screen

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

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

Customizing the Home screen

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

Adding items on your Home screen

1 Touch and hold the empty part of the Home screen.
2 Tap the **Widgets** tab and select the item you want to add. You then see this added item on the Home screen.
3 Drag it to the desired location and lift your finger.

❶ TIP!

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

Removing an item from the Home screen

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

Adding an app to the Quick Button area

• From the Apps screen or on the Home screen, touch and hold an application icon and drag it to the Quick Button area. Then release it in the desired location.

Removing an app from the Quick Button area

• Touch and hold the desired Quick Button, drag it to 🗑, and release it.

❶ NOTE:

▶ The **Apps Button** ⊕ cannot be removed.

Customizing app icons on the Home screen

1 Touch and hold an application icon until it unlocks from its current position, then release it. The editing icon 🖊 appears in the upper-right corner of the application.

2 Tap the application icon again and select the desired icon design and size.

3 Tap **OK** to save the change.

❶ NOTE:

▶ You can also tap **Add new** to personalize icons with your pictures.

Returning to recently-used applications

1 Tap ☐. App previews of recently used applications will be displayed.

2 Tap an app preview to open the application. Or tap ◁ to return to your previous screen.

Notifications panel

Notifications alert you to the arrival of new messages, calendar events and alarms, as well as ongoing events, such as when you are on a call.

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

🅞 **NOTE:**

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

Pending notifications
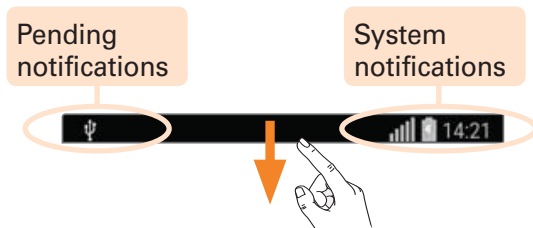
System notifications

Opening the Notifications panel

Swipe down from the Status bar to open the Notifications panel. To close the Notifications panel, swipe the screen upwards or tap ◁.

❶ **Quick Settings Area**

❷ **Notifications**

❸ **Clear**
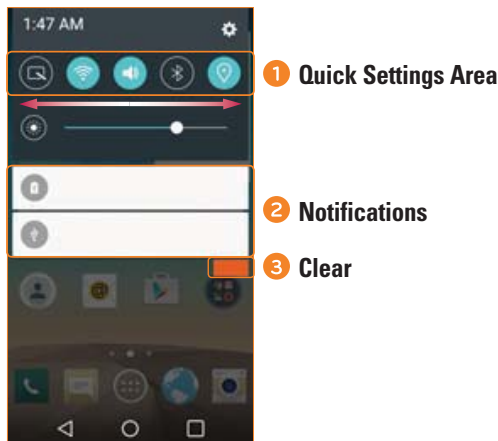
❶ Tap each quick setting button to toggle it on/off. Touch and hold the desired button to directly access the settings menu for the function. To see more toggle keys, swipe left or right. Tap ⊜ to remove, add or rearrange quick setting buttons.

❷ Current notifications are listed, each with a brief description. Tap a notification to view it.

❸ Tap to clear all of the notifications.

Indicator icons on the Status Bar

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

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

Icon	Description	Icon	Description
	No SIM card inserted		A song is currently playing
	No network signal available		Ringer is silenced
	Airplane mode is on		Vibrate mode is on
	Connected to a Wi-Fi network		Battery fully charged
	Wired headset connected		Battery is charging
	Call in progress		The phone is connected to a PC via a USB cable
	Missed call		Downloading data
	Bluetooth is on		Uploading data

🔺	System warning	📍	GPS is on
⏰	An alarm is set	🔄	Data is synchronizing
🔊	New voicemail available	⌨	Choose input method
📧	New text or multimedia message	🔘	Media server content sharing is on
N	NFC is on	📶	Mobile hotspot is active

🟠 NOTE:

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

On-screen keyboard

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

Using the keypad and entering text

⬆ Tap once to capitalize the next letter you type. Double-tap for all caps.

⚙ Tap to go to the keyboard settings. Touch and hold to enter text by voice or access the Clip Tray.

⎵ Tap to enter a space.

⏎ Tap to create a new line.

 Tap to delete the previous character.

Entering special characters

The on-screen keyboard allows you to enter special characters.

For example, to input "á", touch and hold the "a" button until the zoom-in key expands and displays special characters. Without lifting your finger, drag your finger to the desired special character. Once it's highlighted, lift your finger.

❶ NOTE:

▶ A symbol at the top right corner of a key indicates that additional characters are available for that key.

Special Features

Gesture shot

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

To take photo

There are two methods for using the Gesture shot feature.

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

  OR

- Raise your hand, in a clenched fist, until the front camera detects it and a box appears on the screen. Then unclench your fist to start the timer, allowing you time to get ready.
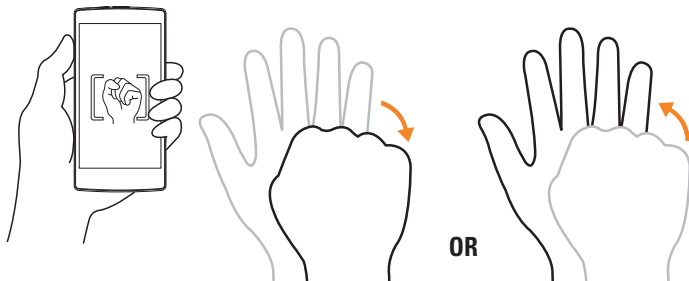
Glance View

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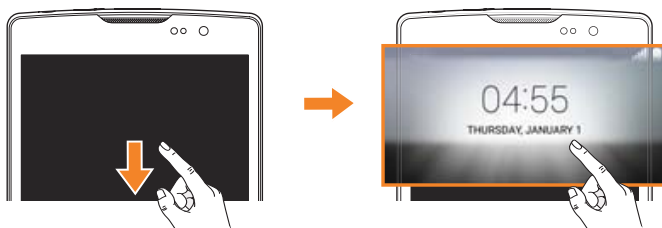
KnockON

The KnockON feature allows you to double-tap the screen to easily turn it on or off.

To turn the screen on

1 Double-tap the center of the Lock screen to turn the screen on.

2 Unlock the screen or access any of the available shortcuts or widgets.

To turn the screen off

1 Double-tap an empty area of the Home screen or the Status Bar.

2 The screen will turn off.

❶ NOTE:

▶ Tap on the center area of the screen. If you tap on the bottom or the top area, the recognition rate may decrease.

Knock Code

The Knock Code feature allows you to create your own unlock code using a combination of knocks on the screen. You can access the Home screen directly when the screen is off by tapping the same sequence on the screen.

❶ NOTE:

▶ If you enter the wrong Knock Code 6 times, it will compulsorily take you to your Google account log in/backup PIN.

▶ Use the fingertip instead of finger nail to tap the screen for turning it on or off.

▶ When the Knock Code is not in use, you can use Knock On function by taping the screen.

1 Tap ◯ > ⊕ > ⚙ > **Display** tab > **Lock screen** > **Select screen lock** > **Knock Code**.

2 Tap the squares in a pattern to set your Knock Code. Your Knock Code pattern can be 3 to 8 taps.

Unlocking the screen using the Knock Code

You can unlock the screen by tapping the Knock Code pattern you already set, when the screen turns off.

QuickMemo+

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

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

1 Drag the Status bar down and tap 🔲.
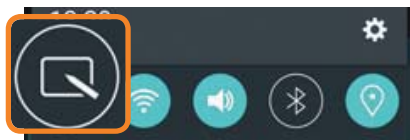
2 Create a memo using the following options:

↩	Tap to undo the most recent action.
↪	Tap to redo the most recently deleted action.
T	Tap to insert text into your memo.
✎	Tap to select the pen type and color.
◇	Tap to use the eraser to erase the pen marks on the memo.
💾	Tap to save the memo you've created.
⌃ ⌄	Tap to hide or display the toolbar.

❶ NOTE:

▶ Please use a fingertip while using the QuickMemo+ feature. Do not use your fingernail.

3 Tap 💾 to save the current memo to the **QuickMemo+** or **Gallery**.

Discard Memos
- Tap ◁.

View the Saved Memo
Tap ◯ > ⊕ > 📷 and select the **QuickMemo+** album or tap 📝 and select the desired memo.

Google Account Setup

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

Creating your Google account

1 Tap ◯ > ⊕.
2 Tap ⚙ > **General** tab > **Accounts & sync** > **Add account** > **Google** > **Create a New Account**.
3 Enter your first and last name, then tap **Next**.
4 Enter a username and tap **Next**. Your phone will communicate with Google servers and check for username availability.
5 Enter your password and tap **Next**.
6 Follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

Signing into your Google account

1 Tap ◯ > ⊕.
2 Tap ⚙ > **General** tab > **Accounts & sync** > **Add account** > **Google**.
3 Enter your email address and tap **Next**.
4 Once you have set up your Google account, your phone will automatically synchronize with your Google account on the web (if a data connection is available).

Google Account Setup

After signing in, your phone will sync with your Google services, such as Gmail, Contacts, and Google Calendar. You can also use Maps, download applications from Play Store, back up your settings to Google servers, and take advantage of other Google services on your phone.

❶ IMPORTANT

▶ Some applications, such as Calendar, work only with the first Google Account you add. If you plan to use more than one Google Account with your phone, be sure to sign into the one you want to use with such applications first. When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone. If you don't sign into a Google Account during setup, you will be prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Play Store.

▶ If you have an enterprise account through your company or other organization, your IT department may have special instructions on how to sign into that account.

Connecting to Networks and Devices

Wi-Fi

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

Connecting to Wi-Fi networks

1   Tap ⭕ > ⊕ > ⚙ > **Networks** tab > **Wi-Fi**.
2   Tap 〔on/off〕 to turn Wi-Fi on and start scanning for available Wi-Fi networks.
3   Tap a network to connect to it.
   • If the network is secured with a lock icon, you will need to enter a security key or password.
4   The Status bar displays icons that indicate Wi-Fi status.

❶ NOTE:

▶ If you are out of the Wi-Fi zone or have set Wi-Fi to Off, the device may automatically connect to the Web using mobile data, which may incur data charges.

❶ TIP! How to obtain the MAC address

▶ Tap ⭕ > ⊕ > ⚙ > **Networks** tab > **Wi-Fi** > ⋮ > **Advanced Wi-Fi** > **MAC address**.

Bluetooth

Bluetooth is a short-range communications technology that allows you to connect wirelessly to a number of Bluetooth devices, such as headsets and hands-free car kits, and Bluetooth-enabled handhelds, computers, printers, and wireless devices.

❶ NOTE:

▶ LG is not responsible for the loss, interception or misuse of data sent or received via the Bluetooth feature.

▶ Always make sure that you share and receive data with devices that are trusted and properly secured.

▶ If there are obstacles between the devices, the operating distance may be reduced.

▶ Some devices, especially those that are not tested or approved by Bluetooth SIG, may be incompatible with your device.

Pairing your phone with another Bluetooth device

1 Tap ◯ > ⊕ > ⚙ > **Networks** tab > **Bluetooth**.
2 Tap ⏻ to turn Bluetooth on.
3 Tap **Search for devices** to view the visible devices in range.
4 Choose the device you want to pair with from the list. Once the paring is successful, your phone connects to the other device.

❶ NOTE:

▶ Pairing between two Bluetooth devices is a one-time process. Once a pairing has been created, the devices will continue to recognize their partnership and exchange information.

❶ TIP!

▶ Please consult documentation included with Bluetooth device for information on pairing mode and passcode (typically 0 0 0 0 – four zeroes).

Sending data via Bluetooth

1 Select a file or item, such as a contact or media file.
2 Select the option for sending data via Bluetooth.
3 Search for and pair with a Bluetooth-enabled device.
  • Due to different specifications and features of other Bluetooth-compatible devices, display and operations may be different, and functions such as transfer or exchange, may not be possible with all Bluetooth compatible devices.

Receiving data via Bluetooth

1 Tap ◯ > ⊕ > ⚙ > **Networks** tab > **Bluetooth**.
2 Tap ⬤ to turn Bluetooth on.
3 You will receive a request to accept a pairing attempt from the sending device. Be sure to select **Accept**.

Wi-Fi Direct

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

Turning on Wi-Fi Direct

1 Tap ◯ > ⊕ > ⚙ > **Networks** tab > **Wi-Fi**.
2 Tap ⋮ > **Advanced Wi-Fi** > **Wi-Fi Direct**.

❶ NOTE:

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

Transferring data between a PC and your device

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

Transferring data

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

❶ NOTE:

▶ The LG United Mobile Driver is required to be installed on your PC to be able to detect the phone.

▶ Check the requirements for using **Media sync (MTP)**.

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

▶ Please refer to www.android.com/filetransfer/#tips in order to use MTP on the MAC OS.

Calls

Making a call

1 Tap 📞 to open the dialer.
2 Enter the number using the dialer. To delete a digit, tap ⌫.
3 After entering the desired number, tap 📞 to place the call.
4 To end the call, tap 📞.

❶ TIP!
▶ To enter "+" to make international calls, touch and hold 0+.

Calling your contacts

1 Tap 👤 to open your contacts.
2 Scroll through the contact list. You can also enter the contact's name in the Search field or scroll along the alphabet letters on the right edge of the screen.
3 In the list that is displayed, tap the contact you want to call.
4 Tap 📞 next to the number you want to dial.

Answering and rejecting a call

- Swipe 📞 in any direction to answer the incoming call.
- Swipe 📞 in any direction to decline an incoming call.

❶ NOTE:
▶ Tap or swipe the **Decline with message** if you want to send a message to the caller.

Making a second call

1 During your first call, tap : > **Add call** and enter the number.
2 Tap 📞 to place the call.
3 Both calls are displayed on the call screen. Your initial call is locked and put on hold.
4 Tap the displayed number to toggle between calls. Or tap 🏃 to start a conference call.
5 To end all calls, tap 📞 .

❶ NOTE:

▶ You are charged for each call you make.

❶ TIP!

▶ Tap **Manage members** to end individual calls or separate calls from a conference call.

Viewing your call logs

From the Home screen, tap 📞 and select **Call logs**.
View a list of all dialed, received and missed calls.

❶ TIP!

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

Call settings

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

1 From the Home screen, tap [icon] to open the dialer.

2 Tap [icon] to display the available options.

3 Tap **Call settings** and configure the desired options.

Contacts

You can add contacts on your phone and synchronize them with the contacts in your Google Account or other accounts that support syncing contacts.

Searching for a contact

1 Tap ⊕ to open your contacts.
2 Tap **Search contacts** and enter the contact name using the keyboard.

Adding a new contact

1 Tap 📞 and enter the new contact's number. Then tap ⋮ > **Add to Contacts**.
2 If you want to add a picture to the new contact, tap the image area.
   Choose **Take photo** or **Select from Gallery**.
3 Enter the desired information for the contact.
4 Tap **Save**.

Favorites contacts

You can classify frequently called contacts as favorites.

Adding a contact to your favorites

1 Tap ⊕ to open your contacts.
2 Tap a contact to view its details.
3 Tap the star at the top right of the screen. The star turns gold.

Removing a contact from your favorites list

1 Tap 👤 to open your contacts.

2 Tap the **Favorites** tab, and choose a contact to view its details.

3 Tap the gold star at the top right of the screen. The star turns a dark color and the contact is removed from your favorites.

Creating a group

1 Tap 👤 to open your contacts.

2 Tap **Groups** > ⋮ > **New group**.

3 Enter a name for the new group. You can also set a distinct ringtone for the newly created group.

4 Tap **Add members** to add contacts to the group.

5 Tap **Save** to save the group.

❶ NOTE:

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

Joining and Separating Contacts

When you have two or more entries for the same contact, you can join them into a single entry. You can also separate contacts that were joined.

1 Tap ◯ > ⊞ > 👤 .

2 Tap ⋮ > **Manage contacts** > **Join contacts**.

3 Select a tab at the top of the screen.

- Tap **Join suggestion** to select entries you want to join.
- Tap **Joined contacts** to select entries you want to separate.

4 Checkmark the entry (or entries) you want to join or separate, then tap the **Join** or **Separate** button.

AT&T Address Book (AAB)

AT&T Address Book (AAB) is an application that automatically syncs your contacts to an online address book for safekeeping! When you first turn on the phone or change your SIM card and open Contacts, the AAB application is displayed.

After signing up for this service, your information is synced on a regular basis.

You can find more information on this service and access your online address book at www. att.com/addressbook. You can find the synchronization menu for the service by tapping ◯ > ⊕ > ⚙ > **General** tab > **Accounts & sync** > **AT&T Address Book**.

Messaging

Your phone combines text and multimedia messaging into one intuitive, easyto-use menu.

Sending a message

1 From the Home screen, tap [ ] and tap [ ] to create a new message.

2 Enter a contact name or contact number into the **To** field. As you enter the contact name, matching contacts appear. You can tap a suggested recipient and add more than one contact.

❶ NOTE:

▶ You may be charged for each text message you send. Please consult with your service provider.

3 Tap the text field and start entering your message.

4 Tap [ ] to open the options menu. Choose from any of the available options.

❶ TIP!

▶ You can tap [ ] to attach the file that you want to share with message.

5 Tap **Send** to send your message.

❶ TIP!

▶ The 160-character limit may vary from country to country depending on how the text message is coded and the language used in the message.

▶ If an image, video, or audio file is added to a text message, it will be automatically converted into a multimedia message and you will be charged accordingly.

❶ NOTE:

▶ When you get a text message during a call, there will be an audible notification.

Conversation view

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

Changing your messaging settings

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

- Tap ▭ on the Home screen, tap ⋮ > **Settings**.

Email

You can use the Email application to read email from providers other than Gmail. The Email application supports the following account types: POP3, IMAP and Microsoft Exchange (for Enterprise users).

Managing email accounts

To open the Email application
Tap ◯ > ⊞ > @ .
The first time you open the Email application, a setup wizard opens to help you add an email account.

Adding another email account:
• Tap ◯ > ⊞ > @ > ⋮ > **Settings >** ⊕ **Add account**.

Changing the email general settings:
• Tap ◯ > ⊞ > @ > ⋮ > **Settings** > **General settings**.

Deleting an email account:
• Tap ◯ > ⊞ > @ > ⋮ > **Settings** > ⋮ > **Remove account** > Select the account to delete > **Remove** > **Yes**.

Working with account folders

Tap ◯ > ⊞ > @ > ⋮ > **Folders**.
Each account has Inbox, Outbox, Sent and Drafts folders. Depending on the features

supported by your account's service provider, you may have additional folders.

Composing and sending email

1 In the @ application, tap ✐ to create a new email.

2 Enter an address for the message's intended recipient. As you enter text, matching addresses will be offered from your contacts. Separate multiple addresses with semicolons.

3 Tap the **Cc/Bcc** field to copy or blind copy to other contacts/email addresses.

4 Tap the text field and enter your message.

5 Tap **Attach** to attach the file you want to send with your message.

6 Tap **Send** to send the message.

Camera and Video

Camera options on the viewfinder

To open the Camera application, tap ○ > ⊕ > 🔘 .

You can use the camera or camcorder to take and share pictures and videos.

❶ **NOTE:**

▶ Be sure to clean the protective lens cover with a microfiber cloth before taking pictures. A lens cover with smudges from fingers can cause blurry pictures with a "halo" effect.

❶ **Hide/Display Options** – Tap to hide/display the camera options on the viewfinder.

❷ **Flash** – Allows you to manage the camera's flash.

❸ **Swap camera** – Tap to swap between the rear camera lens and the front camera lens.

❹ **Settings** – Tap this icon to open the camera settings menu.

5 **Gallery** – Tap to view the last photo or video you captured.

6 **Record** – Tap to start recording.

7 **Capture** – Tap to take a photo.

8 **Exit** – Tap to exit the camera.

Using the advanced settings

In the camera viewfinder, tap ⚙ to show the advanced options. Tap each icon to adjust the following camera settings.

📷	Set the size of your picture and video.
🗣	Allows you to say a voice command to take pictures. You can say LG, Cheese, Smile, or any other supported command.
⏱	Set your camera's timer. This is ideal if you want to be a part of the picture or video.
▦	Allows you to take better pictures and record better videos by displaying a grid line for help with alignment.
⑦	Allows you to learn how a function works. This icon will provide you with a help guide.

❶ NOTE:

▶ The shutter sound is not available when Vibrate mode or Silent mode is enabled.

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Taking a photo

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

Once you have taken a photo

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

✎	Tap to edit the photo.
⬛	Tap to take another photo immediately.
⮘	Tap to send your photo to others or share it via any available social network services.
🗑	Tap to delete the photo.
⋮	Tap to access additional options.
★	Tap to add the photo to your favorites.

Recording a video

1 Open the **Camera** application and point the lens toward the subject you want to capture in your video.

2 Tap 🎥 once to start recording.

❶ NOTE:
▶ The timer will be displayed on the screen.

3 Tap ⏹ to stop recording.

❶ TIP!
▶ 📷 – Tap to capture a screen shot while recording a video.

▶ ⏸ – Tap to pause the recording.

After recording a video

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

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

| ★ | Tap to add the video to favorites. |

Multi-point Auto Focus

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

Burst shot

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

Gallery

The Gallery application presents the pictures and videos in your storage, including those you've taken with the Camera application and those you downloaded from the web or other locations.

1 Tap ◯ > ⊕ > 🖼 to view the images stored in the storage.

2 Tap an album to open it and view its contents. (The pictures and videos in the album are displayed in chronological order.)

3 Tap a picture in an album to view it.

❶ NOTE:

▶ Depending on the software installed, some file formats may not be supported.

▶ Some files may not play properly due to their encoding.

Viewing pictures

The Gallery displays your pictures in folders. When some apps save a picture, a folder is automatically created to contain the picture.

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

Zooming in and out

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

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

Video options

1 Tap 😀 > 📷.
2 Select the video you want to watch.

❶	⏸ / ▶	Touch to pause/resume video playback.
❷	⏭	Touch to fast-forward.
❸	⏮	Touch to rewind.
❹	🔊	Touch to adjust video volume.
❺	🔓 / 🔒	Touch to lock/unlock the screen.
❻	⋮	Tap to access additional options.

❶ NOTE:
▶ While a video is playing, the following options are available:
  • Slide the right side of the screen up or down to adjust the sound.
  • Slide the left side of the screen up or down to adjust the brightness.
  • Slide your finger from left to right (or vice versa) to fast-forward and rewind.

Editing photos
While viewing a photo, tap ✎.

Deleting photos/videos
Use one of the following methods:
  • While in a folder, tap 🗑, select the photos/videos you want to delete. Then tap **Delete**.
  • While viewing a photo, tap 🗑.

Setting wallpaper

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

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

Multimedia

Music

Your phone has a music player that lets you play all your favorite tracks.

Playing a song

1 Tap ⭘ > ⊕ > 🎵 .
2 Tap the **Songs** tab.
3 Select the song you want to play.
4 The following options are available.

❶	★	Tap to add the song to your favorites.
❷	☰	Tap to open the current playlist.

❸	⋮	Tap to access additional options.
❹	✕	Tap to play the current playlist in shuffle mode (tracks are played in random order).
❺	⟳	Tap to toggle through repeat all songs, repeat current song and repeat off.
❻	🔊	Tap to adjust the volume.
❼	⏮	Tap to restart the current track or skip to the previous track in the album, playlist or shuffle list. Touch and hold to rewind.
❽	⏸	Tap to pause playback.
	▶	Tap to resume playback.
❾	⏭	Tap to skip to the next track in the album, playlist or shuffle list. Touch and hold to fast-forward.
❿	☰	Tap to open the music library.

NOTE:

▶ Depending on the software installed, some file formats may not be supported.

▶ If the file size exceeds the available memory, an error can occur when you open files.

▶ Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a licence to reproduce or copy music. In some countries, national laws prohibit private copying of copyrighted material. Before downloading or copying the file, please check the national laws of the relevant country concerning the use of such material.

Utilities

Clock

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

Tap ○ > ⊕ > 🕐.

Alarms

The Alarms tab allows you to set alarms.

1 Open the 🕐 app, then select the **Alarms** tab.
2 Tap ➕ to add a new alarm, tap an alarm.
3 Adjust the settings as necessary and tap **Save**.

❶ NOTE:
▶ You can also tap an existing alarm to edit it.

Timer

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

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

World clock

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

1 Open the ⏰ app, then select the **World clock** tab.

2 Tap ➕ and select the desired city.

Stopwatch

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

1 Open the ⏰ 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 stopwatch.

Calculator

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

1 Tap ◯ > ⊞ > 🔢 .

2 Tap the number keys to enter numbers.

3 For simple calculations, tap the function you want to perform (+, –, x or ÷) followed by =.

❶ NOTE:

▶ For more complex calculations, tap ⋮ > **Scientific calculator.**

Calendar

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

1 Tap ◯ > ⊕ > 🗓.
2 Tap the date you want to add an event to. Then tap ＋.
3 Enter the event details and tap **Save**.

Voice Search

Use this application to search webpages using voice.

1 Tap ◯ > ⊕ > **Apps** tab > **Google** folder 🔵 > 🎤.
2 Say a keyword or phrase when **Speak now** appears on the screen. Select one of the suggested keywords that appear.

❶ NOTE:

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

Downloads

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

• Tap ◯ > ⊕ > ⬇.

❶ NOTE:

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

LG SmartWorld

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

How to Get to LG SmartWorld from Your Phone

1 Tap ◯ > ⊕ > 🄻🄶 .
2 Tap **Sign in** and enter your user name and password. If you have not signed up yet, tap **Register** to create an account.
3 Browse and download the content you want.

❶ NOTE:

▶ You may incur data fee charges when using your mobile network to access LG SmartWorld.

▶ LG SmartWorld may not be available for all carriers or in all countries.

▶ **What if there is no LG SmartWorld 🄻🄶 icon?**
  1 Using a mobile Web browser on your device, access LG SmartWorld (www.lgworld. com) and select your country.
  2 Download the LG SmartWorld App.
  3 Run and install the downloaded file.
  4 Access LG SmartWorld by tapping the 🄻🄶 icon.

▶ **Special benefits available for LG SmartWorld**
  • Personalize your device with home themes, keyboard themes, and fonts.
  • Enjoy special promotions only offered on LG SmartWorld.
  • Note that LG SmartWorld is only available for certain devices. Please check the www.lgworld.com for more information.

Browsing the Web

Browser

The Browser gives you a fast, full-color world of games, music, news, sports, entertainment, and much more, right on your mobile phone.

❶ NOTE:

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

1 Tap ◯ > ⊕ > 🌐.

Using the Web toolbar

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

⇐	Tap to go back one page.
⇒	Tap to go forward one page.
⌂	Tap to go to the Home page.
⊡	Tap to open a new window.
▣	Tap to access your bookmarks.

Viewing webpages

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

Opening a page

To go to a new page, tap ■ > ＋.

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

Searching the web by voice

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

❶ NOTE:
▶ This feature may not be available depending on the region or service provider.

Bookmarks

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

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

History

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

Chrome

Use Chrome to search for information and browse webpages.

1 Tap ◯ > ⊞ > 🌐.

❶ NOTE:
▶ This application may not be available depending on your region and service provider.

Viewing webpages

Tap the address field, and then enter a web address or search criteria.

Opening a page

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

To go to another webpage, tap ☐ (if tabs are merged with apps) or ❷ at the top right corner of the browser (if tabs are not merged with apps). Then tap the desired page to view it.

Settings

The Settings application contains most of the tools for customizing and configuring your phone. All of the settings in the Settings application are described in this section.

To open the Settings application

• Tap ◯ > touch and hold ☐ > **All settings**.

- or -

• Tap ◯ > ⊕ > ⚙.

Networks

< WIRELESS NETWORKS >

Airplane mode

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

Wi-Fi

Turns on Wi-Fi to connect to available Wi-Fi networks.

Bluetooth

Turns the Bluetooth wireless feature on or off to use Bluetooth.

Data Manager

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

Call

Configure phone call settings, such as call forwarding and other special features offered by your carrier.

- **Voicemail** – Allows you to select your carrier's voicemail service.
- **Fixed dialing numbers** – Turn on and compile a list of numbers that can be called from your phone. You need your PIN2, which is available from your operator. Only numbers in the fixed dial list can be called from your phone.
- **Caller ID** – Use default operator settings to display your number in outgoing calls.
- **Incoming voice call pop-up** – Displays incoming voice call pop-up when an app is in use.
- **Call reject** – Allows you to set the call decline function.
- **Decline with message** – When you want to decline a call, you can send a quick message using this function. This is useful if you need to decline a call during a meeting.
- **Auto answer** – Sets the time before a connected hands-free device automatically answers an incoming call.
- **Connection vibration** – Vibrates your phone when the other party answers the call.
- **TTY mode** – Sets the TTY mode to communicate with other TTY devices.
- **Hearing aids** – Allows you to turn on hearing aid compatibility.
- **Noise suppression** – Suppresses background noise on your device during a call.
- **Power key ends call** – Allows you to select your end call.
- **Call duration** – View the duration of calls, including Last call, Outgoing calls, Incoming calls and All calls.
- **Sound settings** - Allows you to control the sounds on the phone.
- **Additional settings** – Allows you to change the following settings.

  Call forwarding: Allows you to set the call forwarding options.

  Call waiting: If call waiting is activated, the handset will notify you of an incoming call while you are on a call (depending on your network provider).

< CONNECTIVITY >

Share & connect

- **NFC** – NFC (Near Field Communication) is a wireless technology that enables data transmission between two objects when they are brought within a few inches of each others. When you enable NFC on your phone, your phone can exchange data with other NFC-enabled devices or read information from smart tags embedded in posters, stickers, and other products.

- **Android Beam** – When this feature is turned on, you can beam app content to another NFC-capable device by holding the devices close together. For example, you can beam Browser pages, YouTube videos, contacts, ThinkFree Viewer, and more. Just bring the devices together (typically back to back) and then touch your screen. The app determines what gets beamed.

- **LG PC Suite** – Connect LG PC Suite with your phone to easily manage multimedia content and apps.

Tethering & networks

- **USB tethering** – You can share your phone's data connection with a computer by turning on USB tethering.

- **Mobile Hotspot** – You can also use your phone to provide a mobile broadband connection. Create a hotspot and share your connection.

- **Bluetooth tethering** – Allows you to connect other devices to your phone via Bluetooth and share its internet connection.

- **Help** – Displays information regarding USB tethering, Mobile hotspot, and Bluetooth tethering.

- **Mobile networks** – Allows you to configure various mobile network settings.

• **VPN** – From your phone, you can add, set up, and manage virtual private networks (VPNs) that allow you to connect and access resources inside a secured local network, such as your corporate network.

❶ NOTE:

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

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

Sound

< BASIC >
Sound profile
Allows you to set the sound profile to **Sound**, **Vibrate only** and **Do not disturb**.
Volume
Adjust the phone's volume settings to suit your needs and environment.

< RINGTONES & VIBRATIONS >
Ringtone
Select the ringtone for incoming calls.
Default notification sound
Select the ringtone for notifications, such as receiving new messages or calendar events.
Sound with vibration
Checkmark to set the phone to vibrate in addition to the ringtone when you receive calls.

Vibration type

Allows you to set a vibration type for notifications.

< NOTIFICATIONS >

Do not disturb

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

Lock screen

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

Apps

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

< ADVANCED SETTINGS >

Vibrate on tap

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

Sound effects

This menu lets you select whether you hear tones when touching numbers on the dial pad, selecting on-screen options, and screen lock sound.

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

Message/call voice notifications

Allows the device to read out the incoming call and the message event automatically.

Display

< HOME & LOCK >

Home screen

- **Select Home** – Select the desired Home theme. Choose from **Home** (standard Android layout) or **EasyHome** (simplified version for users less familiar with Android navigation).
- **Theme** – Sets the screen theme for your device. You can download new themes from LG SmartWorld.
- **Wallpaper** – Allows you to set the desired wallpaper for your Home screen.
- **Screen swipe effect** – Choose the desired type of effect to display when you swipe from one Home screen canvas to the next.
- **Allow Home screen looping** – Checkmark to allow continuous Home screen scrolling (loop back to first screen after last screen).
- **Home backup & restore** – Set to back up and restore Home app layout and wallpaper.

Lock screen

- **Select screen lock** – Allows you to set a screen lock to secure your phone.
- **Smart Lock** – Sets to keep your phone unlocked when you have a trusted Bluetooth device connected to it, when it's in a familiar location like your home or work, or when it recognizes your face.
- **Screen swipe effect** – Sets the effect used when swiping the lock screen.
- **Wallpaper** – Select the wallpaper to display for your lock screen.
- **Shortcuts** – Customize shortcuts on the lock screen.

- **Contact info for lost phone** – Select whether to display the owner information on the lock screen and customize the owner information.
- **Lock timer** – Allows you to set the amount of time before the screen automatically locks after the screen has timed-out.
- **Power button instantly locks** – Checkmark to instantly lock the screen when the Power/Lock Key is pressed. This setting overrides the Security lock timer setting.

Home touch buttons

Select the home touch button combination and color.

< FONT >

Font type

Select the desired font type for the phone and menus.

Font size

Select the desired font size for the phone and menus.

< OTHER SCREEN SETTINGS >

Brightness

Allows you to adjust the screen brightness. Checkmark **Night brightness** to set brightness at 0% automatically between 12:00 AM ~ 06:00 AM.

Auto-rotate screen

Allows you to set to switch the screen orientation automatically when you physically rotate the phone.

Screen timeout

Allows you to set the amount of time before the screen times out.

< ADVANCED SETTINGS >

Screen-off effect

Allows you to set the effect used when the screen turns off.

Daydream

Select the screensaver to display when the phone is sleeping while docked and/or charging.

General

< PERSONAL >

Language & input

Select the language for the text on your phone and for configuring the on-screen keyboard, including words that you've added to its dictionary.

- **Language** – Choose a language to use on your phone.
- **Spelling correction** – Allows spelling correction when using the on-screen keyboard.
- **Default** – Allows you to select the default keyboard type.
- **Google Keyboard** – Tap the Settings icon to change the Google Keyboard settings.
- **LG Keyboard** – Tap the Settings icon to change the LG Keyboard settings.
- **Google voice typing** – Checkmark to select Google voice typing to enter text. Tap the Settings icon to change the Google voice settings.
- **Keeper FastFill** – This feature allows you to manage and secure your password and private information.
- **Voice Search** – Touch to configure the Voice Search settings.
- **Text-to-speech output** – Touch to set the preferred engine or general settings for text-to-speech output.

- **Pointer speed** – Adjust the pointer speed.

Location

Turn on location service, your phone determines your approximate location using Wi-Fi and mobile networks. When you select this option, you're asked whether you consent to allowing Google to use your location when providing these services.

- **Mode** – Sets the how your current location information is determined.
- **Recent Location Request** – Displays applications and services that have recently requested your location information.
- **Camera** – Checkmark to tag photos or videos with their locations.
- **Google Location History** – Allows you to view and manage your Google location history.

Accounts & sync

Use the Accounts & sync settings menu to add, remove, and manage your Google and other supported accounts. You also use these settings to control how and whether all applications send, receive, and sync data on their own schedules and whether all applications can synchronize user data automatically.

Gmail™, Calendar, and other applications may also have their own settings to control how they synchronize data; see the sections on those applications for details. Touch **Add account** to add new account.

Accessibility

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

- **TalkBack** – Allows you to set up the TalkBack function which assists people with impaired vision by providing verbal feedback.
- **Font size** – Sets the font size.
- **Invert colors** – Checkmark to invert the colors of the screen and content.

- **Color adjustment** – Allows you to adjust screen and content colors.
- **Touch zoom** – Allows you to zoom in and out by triple-tapping the screen.
- **Message/call voice notifications** – This feature allows you to hear automatic spoken alerts for incoming calls and messages.
- **Screen shade** – Checkmark to set the screen to a darker contrast.
- **Accessibility shortcut** – Allows you to open the Accessibility feature quickly on any screen.
- **Text-to-speech output** – Tap to customize text-to-speech (TTS) settings.
- **Audio type** – Sets the audio type.
- **Sound balance** – Sets the audio route. Move the slider on the slide bar to set it.
- **Flash alerts** – Checkmark to set the flash to blink for incoming calls and notifications.
- **Turn off all sounds** – Checkmark to turn off all device sounds.
- **Captions** – Allows you to customize caption settings for those with hearing impairments.
- **Touch feedback time** – Sets the touch feedback time.
- **Touch assistant** – Show a touch board with easy access to common actions.
- **Screen timeout** – Sets the amount of time before the backlight turns off automatically.
- **Touch control areas** – Allows you to select an area of the screen to limit touch activation to just that area of the screen.
- **Auto-rotate screen** – Checkmark to allow the phone to rotate the screen depending on the phone orientation (portrait or landscape).
- **Password voice confirmation** – Checkmark so that your phone can read passwords you touch.
- **Power key ends call** – Checkmark so that you can end voice calls by pressing the Power/Lock Key.

- **Accessibility settings shortcut** – Sets quick, easy access to selected features when you triple-tap the Home Key.
- **One-touch input** – Checkmark to enable one-touch input. It allows each finger touch to enter a letter or character on the LG keyboard.
- **Switch Access** – Allows you to interact with your device using one or more switches that work like keyboard keys. This menu can be helpful for users with mobility limitations that prevent them from interacting directly with the your device.
- **Keeper FastFill** – Allows you to turn the Keeper FastFill feature on, which securely and quickly auto-fills your login credentials on your websites and mobile apps.

One-handed operation

Allows you to adjust the position of the dial keypad, LG keyboard, or lock screen to the left or right side of the screen to easily use it with one hand.

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

Shortcut key

Get quick access to apps by pressing and holding the Volume Keys when the screen is off or locked.

< PRIVACY >

Security

Use the Security menu to configure how to help secure your phone and its data.

- **Lock screen** – Allows you to set your lock screen settings.
- **Encrypt phone** – Allows you to encrypt data on the phone for security. You will be required to enter a PIN or password to decrypt your phone each time you power it on.
- **Encrypt SD card storage** – Encrypt SD card storage and keep data unavailable for other devices.
- **Set up SIM card lock** – Allows you to set a PIN to be required to use the phone. You can also change the PIN after setting it.
- **Password typing visible** – Checkmark to briefly show each character of passwords as you enter them so that you can see what you enter.
- **Phone administrators** – View or deactivate phone administrators.
- **Unknown sources** – Allow installation of non-Play Store applications.
- **Verify apps** – Disallow or warn before installation of apps that may cause harm.
- **Storage type** – Displays the storage type for credentials.
- **Trusted credentials** – Allows you to check trusted CA certificates list.
- **Install from storage** – Touch to install a secure certificate.
- **Clear credentials** – Deletes all secure certificates and related credentials and erases the secure storage's own password.
- **Trust agents** – Select apps to use without unlocking screen.
- **Screen pin** – This feature allows you to lock your device so that the current user can only access the pinned app. This is useful for users with children.
- **App usage access** – Allows apps to view app usage info on your phone.

< SMART FUNCTIONS >

Gestures

- **Silence incoming calls** – Checkmark to enable you to flip the phone to silence incoming calls.

- **Snooze or stop alarm** – Checkmark to enable you to simply flip the phone to snooze or stop the alarm.
- **Pause video** – Checkmark to enable you to simply flip the phone to pause the currently playing video.
- **Help** – Touch to get information on using the Gesture functions of your phone.
- **Motion sensor calibration** – Allows you to improve the accuracy of the tilt and speed of the sensor.

< PHONE MANAGEMENT >

Date & time

Set your preferences for how the date and time is displayed.

Storage

You can monitor the used and available internal memory in the device.

Battery

- **Battery information** – The Battery charge information is displayed on a battery graphic along with the percentage of the remaining charge and its status.
- **Battery usage** – Displays the battery usage level and battery use details. Tap one of the items to see more detailed information.
- **Battery percentage on status bar** – Checkmark to display the battery level percentage on the Status bar next to the Battery icon.
- **Battery saver** – Tap the Battery Saver switch to toggle it on or off. You can also set when to turn battery saver on.
- **Help** – Displays battery saving items information.

Apps

Allows you to view details about the apps installed on your phone, manage their data, and force them to stop.

Default message app

This menu allows you to choose what messaging app to use as your default messaging app.

Backup & reset

Change the settings for managing your settings and data.

- **Back up my data** – Back up app data, Wi-Fi passwords, and other settings to Google servers.
- **Backup account** – Displays the account that is currently being used to back up information.
- **Automatic restore** – When reinstalling an app, restore backed up settings and data.
- **LG Backup service** – Backs up all information on the device and restores it in the event of data loss or replacement.
- **Factory data reset** – Reset your settings to the factory default values and delete all your data. If you reset the phone this way, you are prompted to re-enter the same information as when you first started Android.

Printing

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

About phone

View legal information, check phone status and software versions, and perform a software update.

PC software (LG PC Suite)

For Windows OS

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

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

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

O NOTE:

▶ Some functions may not be available, depending on the model.

▶ You can use the Help menu from the application to find out how to use the LG PC Suite software.

Installing the LG PC Suite Software

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

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

System Requirements for LG PC Suite software

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

❶ NOTE: LG United USB Driver

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

For Mac OS

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

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

❶ NOTE:

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

PC software (LG PC Suite)

Installing the LG PC Suite Software

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

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

System Requirements for LG PC Suite software

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

❶ NOTE: LG United USB Driver

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

Software Update

Phone Software Update

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

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

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

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

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

This feature allows you to update the firmware of your phone to the newer version conveniently via OTA without connecting the USB cable. This feature is only available if and when LG makes the newer version of the firmware available for your device.
First, you can check the software version on your mobile phone:
Tap ◯ > ⊕ > **Settings** ⚙ > **General** tab > **About phone** > **Software info**.
To perform the phone software update, Tap ◯ > ⊕ > **Settings** ⚙ > **General** tab > **About phone** > **Update Center** > **Software Update** > **Check now for update**.

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

Trademarks

Trademarks

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- All other trademarks and copyrights are the property of their respective owners.

❶ NOTICE

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

Q&A

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

Q How do I view the list of outgoing calls, incoming calls and missed calls?
A Tap the **Phone Button** 📞 and tap the **Call logs** tab.

Q Why is the connection inconsistent or not audible in certain areas?
A When the frequency environment is unstable in a certain area, connection may be inconsistent and inaudible. Relocate to another area and try again.

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

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

Q Why does the battery run out so quickly during normal use?
A This may be due to the user environment, a large number of calls or a weak signal.

Q Why is no number dialed when an Address Book entry is recalled?
A Check that the number has been stored correctly by using the Address book Search feature. Re-store them, if necessary.

Q The screen got frozen. How can I solve this problem?
A If the screen freezes or the phone does not respond when you try to operate it, remove the battery and reinsert it. Then power the phone back on.

Accessories

There are a variety of accessories available for your mobile phone, some of which may be sold separately. You can select these options according to your personal communication requirements. Visit your local AT&T store or www.att.com/wirelessaccessories for specific offerings.

❶ NOTE

▶ Always use genuine LG accessories. Failure to do this may invalidate your warranty.

▶ Accessories may be different in different regions; please check with our regional service company or agent for further enquiries.

Troubleshooting

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

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

Troubleshooting

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

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

Troubleshooting

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

For Your Safety

Important Information

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

Before You Start

⚠ Warning
Violation of the instructions may cause serious injury or death.

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

▶ Never use an unapproved battery since this could damage the phone and/or battery and could cause the battery to explode.
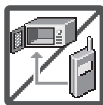
▶ Never place your phone in a microwave oven as it will cause the battery to explode.

▶ Never store your phone in temperatures less than -4°F or greater than 122°F.

▶ Do not dispose of your battery near fire or with hazardous or flammable materials.

For Your Safety

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

▶ Do not use the phone in areas where its use is prohibited. (For example: aircraft)

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

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

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

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

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

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

▶ Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.

▶ Do not disassemble the phone.

▶ Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.

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

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

▶ Store the battery out of reach of children.

▶ Be careful that children do not swallow any parts (such as earphone, connection parts of the phone, etc.) This could cause asphyxiation or suffocation resulting in serious injury or death.

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

▶ Only use the batteries and chargers provided by LG. The warranty will not be applied to products provided by other suppliers.

▶ Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.

▶ An emergency call can be made only within a service area. For an emergency call, make sure that you are within a service area and that the phone is turned on.

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

▶ Use and store your phone in temperatures between 0°C/32°F and 45°C/113°F, if possible. Exposing your phone to extremely low or high temperatures may result in damage, malfunction, or even explosion.

HAC statement

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

FCC RF Exposure Information

WARNING! Read this information before operating the phone.

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

Body-worn Operation

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

Caution

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

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

Consumer Information About Radio Frequency Emissions

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

Are wireless phones safe?

Scientific research on the subject of wireless phones and radio frequency ("RF") energy has been conducted worldwide for many years, and continues. In the United States, the Food and Drug Administration ("FDA") and the Federal Communications Commission ("FCC") set policies and procedures for wireless phones. The FDA issued a website publication on health issues related to cell phone usage where it states, "The scientific community at large … believes that the weight of scientific evidence does not show an association between exposure to radiofrequency (RF) from cell phones and adverse health outcomes. Still the scientific community does recommend conducting additional research to address gaps in knowledge. That research is being conducted around the world and FDA continues to monitor developments in this field. You can access the joint FDA/FCC website at http://www.fda.gov (under "c"in the subject index, select Cell Phones > Research). You can also contact the FDA toll-free at (888) 463-6332 or (888) INFO-FDA. In June 2000, the FDA entered into a cooperative research and development agreement through which additional scientific research is being conducted. The FCC issued its own website publication stating that "there is no scientific evidence that proves that wireless phone usage can lead to cancer or a variety of other problems, including headaches, dizziness or memory loss." This publication is available at http://www.fcc.gov/cgb/ cellular.html or through the FCC at (888) 225-5322 or (888) CALL-FCC.

What does "SAR" mean?

In 1996, the FCC, working with the FDA, the U.S. Environmental Protection Agency, and other agencies, established RF exposure safety guidelines for wireless phones in the United States. Before a wireless phone model is available for sale to the public, it must be tested by the manufacturer and certified to the FCC that it does not exceed limits established by the FCC. One of these limits is expressed as a Specific Absorption Rate, or "SAR." SAR is a measure of the rate of absorption of RF energy in the body. Tests for SAR are conducted with the phone transmitting at its highest power level in all tested frequency bands. Since 1996, the FCC has required that the SAR of handheld wireless phones not exceed 1.6 watts per kilogram, averaged over one gram of tissue.

Although the SAR is determined at the highest power level, the actual SAR value of a wireless phone while operating can be less than the reported SAR value. This is because the SAR value may vary from call to call, depending on factors such as proximity to a cell site, the proximity of the phone to the body while in use, and the use of hands-free devices. For more information about SARs, see the FCC's OET Bulletins 56 and 65 at http://www.fcc. gov/Bureaus/Engineering_Technology/Documents/bulletins or visit the Cellular Telecommunications Industry Association website at http://www.ctia.org/consumer_info/index.cfm/ AID/10371. You may also wish to contact the manufacturer of your phone.

Can I minimize my RF exposure?

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

For Your Safety

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 ORQ, United Kingdom. Copies of the UK's annual reports on mobile phones and RF are available online at www.iegmp.org.uk and http://www.hpa.org.uk/radiation/ (search "mobile"). Parents who wish to reduce their children's RF exposure may choose to restrict their children's wireless phone use.

Where can I get further information about RF emissions?

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

U.S. Food and Drug Administration

FDA Consumer magazine
November-December 2000
Telephone: (888) INFO-FDA
http://www.fda.gov (Under "c" in the subject index, select Cell Phones > Research.)

U.S. Federal Communications Commission

445 12th Street, S.W.
Washington, D.C. 20554
Telephone: (888) 225-5322
http://www.fcc.gov/oet/rfsafety

Independent Expert Group on Mobile Phones

http://www.iegmp.org.uk

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

283 Sparks Street
Ottawa, Ontario K1R 7X9
Canada
Telephone: (613) 991-6990
http://www.rsc.ca/index.php?page=Expert_Panels_RF&Lang_id=120

World Health Organization

Avenue Appia 20
1211 Geneva 27
Switzerland
Telephone: 011 41 22 791 21 11
http://www.who.int/mediacentre/factsheets/fs193/en/

International Commission on Non-Ionizing Radiation Protection

c/o Bundesamt fur 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, worn on the body, or hotspot) as required by the FCC for each model.

The highest SAR values are:

* Head: 1.02 W/kg

* Body (Body-worn/Hotspot): 1.23 W/kg

(Body measurements differ among phone models, depending upon available accessories and FCC requirements).

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

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID ZNFH443. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at http://www.ctia.org/.

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

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

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

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

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

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

is the best way to evaluate it for your personal needs.

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

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

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.
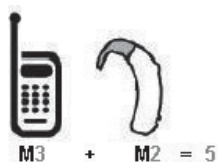
In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with "normal usage" while using their hearing aid with the particular wireless phone. "Normal usage" in this context is defined as a signal quality that's acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

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

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.

For information about hearing aids and digital wireless phones
Wireless Phones and Hearing Aid Accessibility

http://www.accesswireless.org/

Gallaudet University, RERC

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

FCC Hearing Aid Compatibility and Volume Control

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

The Hearing Aid Compatibility FCC Order

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-168A1.pdf

Hearing Loss Association of America [HLAA]

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

Caution: Avoid potential hearing loss.

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

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

▶ Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.

▶ When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.

▶ Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise.

▶ Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.

▶ Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.

▶ Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

TIA Safety Information

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

Exposure to Radio Frequency Signal

Your wireless handheld portable phone is a low power radio transmitter and receiver. When ON, it receives and sends out Radio Frequency (RF) signals.

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

  ANSI C95.1 (1992) *

  NCRP Report 86 (1986)

  ICNIRP (1996)

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

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

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

Antenna Care

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

Tips on Efficient Operation

For your phone to operate most efficiently:

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

Electronic Devices

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

Pacemakers

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

▶ Should ALWAYS keep the phone more than six (6) inches from their pacemaker when the phone is turned ON;

▶ Should not carry the phone in a breast pocket;

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

▶ Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

Hearing Aids

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

to discuss alternatives).

Other Medical Devices

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

Health Care Facilities

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

Vehicles

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

Posted Facilities

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

Aircraft

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

Blasting Areas

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

Potentially Explosive Atmosphere

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Part 15.19 statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(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 for compliance 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:

▶ Reorient or relocate the receiving antenna.

▶ Increase the separation between the equipment and receiver.

▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

▶ Consult the dealer or an experienced radio/TV technician for help.

Safety Information

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

⚠Caution

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

▶ Do not disassemble or open crush, bend or deform, puncture or shred.

▶ Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard. Such conditions may present the risk of fire or explosion.

▶ Only use the battery for the system for which it is specified.

▶ Only use the battery with a charging system that has been LG-approved and qualified with the system per IEEE-Std-1725. Use of an unqualified and non-LG-approved 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 LG-approved and qualified with the system per this standard, IEEE-Std-1725. Use of an unqualified and non-LG-approved battery may present a risk of fire, explosion, leakage or other hazard.

▶ 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.

▶ At least, one of the Authentication methods may be implemented. (e.g. H/W, S/W, Mechanical, Hologram, etc.)

▶ Improper battery use may result in a fire, explosion or other hazard.

Charger and Adapter Safety

▶ The charger and adapter are intended for indoor use only.

▶ Insert the battery pack 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 pack charger abroad.

Battery Information and Care

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

▶ Please read the manual of proper installation and removal of the battery.

▶ Please read the manual of specified charger about charging method.

▶ Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.

▶ Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. 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 LG-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.

▶ Never store your phone in temperature less than -4°F or greater than 122°F. Charge the battery in range of 0°C ~ 45°C.

▶ Charging temperature range is regulated between 0°C/32°F and 45°C/113°F. Do not charge the battery out of recommended temperature range. Charging out of recommended range might cause the generating heat or serious damage of battery. And also, it might cause the deterioration of battery's characteristics and cycle life.

▶ Do not use or leave the battery under the blazing sun or in heated car by sunshine. The battery may generate heat, smoke or flame. And also, it might cause the deterioration of battery's characteristics or cycle life.

▶ The battery pack has protection circuit to avoid the danger. Do not use nearby the place where generates static electricity more than 100V which gives damage to the protection circuit. If the protection circuit were broken, the battery would generate smoke, rupture or flame.

▶ When the battery has rust, bad smell or something abnormal at first-time-using, do not use the equipment and go to bring the battery to the shop which it was bought.

▶ In case younger children use the battery, their parents should teach them how to use batteries according to the manual with care.

▶ If the skin or cloth is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation. Remove and do not use the battery.

▶ Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.

▶ Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.

▶ The charger and adapter are intended for indoor use only.

▶ Insert the battery pack charger vertically into the wall power socket.

▶ Only use the LG-approved battery charger. Otherwise, you may cause serious damage to your phone and risk of overheating, fire or explosion may occur.

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

▶ Talking on your phone for a long 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. This could cause a fire. Do not place or answer calls while charging the

phone as it may short-circuit the phone and/or cause electric shock or fire. Don't short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and − terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

▶ Never use and unapproved battery since this could damage the phone and/or battery and could cause the battery to explode. Only use the batteries and chargers provided by LG. The warranty will not be applied to products provided by other suppliers. Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.

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.

▶ Don't short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag or contact with sharp objects including animal bites may short-circuit the + and − terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

General Notice

▶ Using a damaged battery or placing a battery in your mouth or animal's mouth may cause serious injury including a fire or explosion.

▶ 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 this happens, turn it off immediately and remove the battery. Immediately, take it to an LG Authorized Service Center.

▶ Do not paint your phone.

▶ The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ringtones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.

▶ When you use the phone in public places, set the ringtone to vibration so you don't disturb others.

▶ Do not turn your phone on or off when putting it to your ear.

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

FDA Consumer Update

The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Mobile Phones:

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of Radio Frequency (RF) energy in the microwave range while being used. They also emit very low levels of RF when in standby mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

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

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit Radio Frequency (RF) energy at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

▶ Support needed research into possible biological effects of RF of the type emitted by wireless phones;

▶ Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and

▶ Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

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

▶ National Institute for Occupational Safety and Health

▶ Environmental Protection Agency

▶ Occupational Safety and Health Administration

▶ National Telecommunications and Information Administration

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

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

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

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

The term "wireless phone" refers here to handheld wireless phones with built-in antennas, often called "cell", "mobile", or "PCS" phones. These types of wireless phones can expose the user to measurable Radio Frequency (RF) energy because of the short distance between the phone and the user's head.

These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of Radio Frequency (RF) energy exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we do not know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from

wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but ten or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop — if they do — may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

6. What is the FDA doing to find out more about the possible health effects of wireless phone RF?

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to Radio Frequency (RF) energy.

The FDA has been a leading participant in the World Health Organization International Electro Magnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues.

The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research And Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much Radio Frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit Radio Frequency (RF) energy exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless phones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has the FDA done to measure the Radio Frequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the Radio Frequency (RF) energy exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers.

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

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

If there is a risk from these products — and at this point we do not know that there is — it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to Radio Frequency (RF) energy. Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data does not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to Radio Frequency (RF) energy, the measures described above would apply to children and teenagers using wireless

phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

11. What about wireless phone interference with medical equipment?

Radio Frequency (RF) energy from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure Electro Magnetic Interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical Instrumentation (AAMI). The final draft, a joint effort by the FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI.

The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a "compatible" phone and a "compatible" hearing aid at the same time. This standard was approved by the IEEE in 2000.

The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones

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

Federal Communications Commission (FCC) RF Safety Program

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

International Commission on Non-Ionizing Radiation Protection

(http://www.icnirp.de)

World Health Organization (WHO) International EMF Project

(http://www.who.int/emf)

National Radiological Protection Board (UK)

(http://www.hpa.org.uk/radiation/)

Driving

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

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

▶ Use hands-free operation, if available;

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

10 Driver Safety Tips

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

When operating a car, driving is your first responsibility. When using your wireless phone

behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.

3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.

4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Don't take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to-do" list while driving a car, you are not watching where you are going. It is common sense. Do not get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light, or otherwise stationary. But if you need to dial while driving, follow this simple tip -- dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or

emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations -- with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard, or medical emergency. Remember, it's a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.

10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your 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.

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