

# ENGLISH

# User Guide LG OPTIMUS L9™



www.lg.com

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.

When using this product, the safety precautions below must be taken to avoid possible legal liabilities and damages.

Retain and follow all product safety and operating instructions. Observe all warnings in the product operating instructions. To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment, observe the following precautions.

# ELECTRICAL SAFETY

This product is intended for use when supplied with power from the designated battery or power supply unit. Other usage may be dangerous and will invalidate any approval given to this product.

# SAFETY PRECAUTIONS FOR PROPER GROUNDING INSTALLATION

CAUTION: Connecting to improperly grounded equipment can result in an electric shock to your device. This product is equipped with a USB cable for connecting to a desktop or notebook computer. Be sure your computer is properly grounded (earthed) before connecting this product to the computer. The power supply cord of a desktop or notebook computer has an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet which is properly installed and grounded in accordance with all local codes and ordinances.

# SAFETY PRECAUTIONS FOR POWER SUPPLY UNIT

#### Use the correct external power source

A product should be operated only from the type of power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your authorized service provider or local power company. For a product that operates from battery power or other sources, refer to the operating instructions that are included with the product.

#### Handle battery packs carefully

This product contains a Li-ion battery. There is a risk of fire and burns if the battery pack is handled improperly. Do not attempt to open or service the battery pack. Do not disassemble, crush, puncture, short external contacts or circuits, dispose of in fire or water, or expose a battery pack to temperatures higher than 60°C (140°F).

WARNING: Danger of explosion if battery is incorrectly replaced. To reduce risk of fire or burns, do not disassemble, crush, puncture, short external contacts, expose to temperature above 60°C (140°F), or dispose of in fire or water. Replace only with specified batteries. Recycle or dispose of used batteries according to the local regulations or reference guide supplied with your product.

#### Take extra precautions

- Keep the battery or device dry and away from water or any liquid as it may cause a short circuit.
- Keep metal objects away so they don't come in contact with the battery or its connectors as it may lead to short circuit during operation.
- The phone should be only connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.
- Do not use a battery that appears damaged, deformed, or discolored, or one that has any rust on its casing, overheats, or emits a foul odor.
- Always keep the battery out of the reach of babies and small children, to avoid swallowing of the battery. Consult a doctor immediately if the battery is swallowed.
- Only use the battery with a charging system that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage or other hazard.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.

- 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.
- If the battery leaks:

Do not allow the leaking fluid to come in contact with skin or clothing. If contact occurs, flush the affected area immediately with clean water and seek medical advice.

Do not allow the leaking fluid to come in contact with eyes. If contact occurs, DO NOT rub; rinse with clean water immediately and seek medical advice.

Take extra precautions to keep a leaking battery away from fire as there is a danger of ignition or explosion.

# SAFETY PRECAUTIONS FOR DIRECT SUNLIGHT

Keep this product away from excessive moisture and extreme temperatures. Do not leave the product or its battery inside a vehicle or in places where the temperature may exceed 140°F (60°C), such as on a car dashboard, window sill, or behind glass that is exposed to direct sunlight or strong ultraviolet light for extended periods of time. This may damage the product, overheat the battery, or pose a risk to the vehicle.

# PREVENTION OF HEARING LOSS

CAUTION: Permanent hearing loss may occur if earphones or headphones are used at high volume for prolonged periods of time.

# SAFETY IN AIRCRAFT

Due to the possible interference caused by this product to an aircraft's navigation system and its communications network, using this device's phone function on board an airplane is against the law in most countries. If you want to use this device when its use is restricted on board an aircraft, remember to switch to Airplane Mode which turns off RF functions that could cause interference.

# ENVIRONMENT RESTRICTIONS

Do not use this product in gas stations, fuel depots, chemical plants or where blasting operations are in progress, or in potentially explosive atmospheres such as fueling areas, fuel storehouses, below deck on boats, chemical plants, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Please be aware that sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

## **EXPLOSIVE ATMOSPHERES**

When in any area with a potentially explosive atmosphere or where flammable materials exist, the product should be turned off and the user should obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Users are advised not to use the equipment at refueling points such as service or gas stations, and are reminded of the need to observe restrictions on the use of radio equipment in fuel depots, chemical plants, or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. These include fueling areas, below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

#### ROAD SAFETY

Vehicle drivers in motion are not permitted to use communication services with handheld devices, except in the case of emergency. In some countries, using hands-free devices as an alternative is allowed.

# SAFETY PRECAUTIONS FOR RF EXPOSURE

- Avoid using your phone near metal structures (for example, the steel frame of a building).
- Avoid using your phone near strong electromagnetic sources, such as microwave ovens, sound speakers, TV and radio.
- Use only original manufacturer-approved accessories, or accessories that do not contain any metal.
- Use of non-original manufacturer-approved accessories may violate your local RF exposure guidelines and should be avoided.

## INTERFERENCE WITH MEDICAL EQUIPMENT FUNCTIONS

This product may cause medical equipment to malfunction. The use of this device is prohibited in most hospitals and medical clinics.

If you use any personal medical device(s), consult the manufacturer of your device(s) to determine if the device(s) are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information. Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

#### **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.

# NON-IONIZING RADIATION

Your device has an internal antenna. This product should be operated in its normal-use position to ensure the radiative performance and safety from interference. As with other mobile radio transmitting equipment, users are advised that for satisfactory operation of the equipment and for personal safety, it is recommended that no part of the human body be allowed to come too close to the antenna during operation of the equipment. Use only the supplied integral antenna. Use of unauthorized or modified antennas may impair call guality and damage the phone, causing loss of performance and SAR levels exceeding the recommended limits as well as result in noncompliance with local regulatory requirements in your country. To assure optimal phone performance and ensure human exposure to RF energy is within the guidelines set forth in the relevant standards, always use your device only in its normal-use position. Contact with the antenna area may impair call guality and cause your device to operate at a higher power level than needed. Avoiding contact with the antenna area when the phone is IN USE optimizes the antenna performance and the battery life.

# HAC

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

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# Cautions

- The user interface of Google applications (Google Search, Google Maps, Navigation, etc.) can vary depending on its software version.
- ▶ Locations are inaccurate when GPS and Wi-Fi are not set to On.
- With the Android operating system, some available Play Store applications only operate correctly with phones that have a specific screen resolution. Please be advised that some of the applications on the Play Store may not be available for your phone due to an LCD resolution requirement that does not match your phone. In addition, please be aware that 3rd party applications with programming defects may cause issues with your phone, including lock-ups and resets.

# **Technical Details**

CDMA Standard	Designator	Description
Basic Air Interface	TIA/EIA-95A TSB-74 ANSI J-STD-008 TIA/EIA-IS2000	CDMA Dual-Mode Air Interface 14.4kbps Radio Link Protocol and Inter- band Operations IS-95 Adapted for PCS Frequency Band CDMA2000 1xRTT Air Interface
Network	TIA/EIA/IS-634 TIA/EIA/IS-651 TIA/EIA/IS-41-C TIA/EIA/IS-124	MAS-BS PCSC-RS Intersystem Operations Non-Signaling Data Communications

Service	TIA/EIA/IS-96-B TIA/EIA/IS-637 TIA/EIA/IS-657 IS-801 TIA/EIA/IS- 707-A	Speech CODEC Short Message Service Packet Data Position Determination Service (gpsOne) High Speed Packet Data
1x EV-DO Related Interface	TIA/EIA/IS-856 TIA/EIA/IS-878 TIA/EIA/IS-866 TIA/EIA/IS-890	CDMA2000 High Rate Packet Data Air Interface 1x EV-DO Inter-Operability Specification for HRPD Access Network Interfaces Recommended Minimum Performance Standards for HRPD High Rate Packet Data Access Terminal Test Application Specification (TAS) for High Rate Packet Data Air Interface

LTE Standard	Designator	Description	
Basic Air Interface		Evolved Universal Terrestrial Radio Access (E-UTRA);	
	TS 36.101	User Equipment (UE) radio transmission and reception	
	TS 36.104	Evolved Universal Terrestrial Radio Access (E-UTRA);	
		Base Station (BS) radio transmission and reception	

		Evolved Universal Terrestrial Radio Access (E-UTRA);
		User Equipment (UE) conformance specification;
		Radio transmission and reception;
		Part 1: Conformance testing
		Evolved Universal Terrestrial Radio Access (E-UTRA);
	TS 36.521-1	User Equipment (UE) conformance specification;
Conformance Test	TS 36.521-2	Radio transmission and reception;
	TS 36.521-3	Part 2: Implementation Conformance Statement (ICS)
		Evolved Universal Terrestrial Radio Access (E-UTRA);
		User Equipment (UE) conformance specification;
		Radio transmission and reception;
		Part 3: Radio Resource Management (RRM) conformance testing

# 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 those international standards.

# **Bodily Contact During 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. Third-party 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.

## Vehicle-Mounted External Antenna

(Optional, if available.)

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

#### Part 15.19 statement

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

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that causes undesired operation.

# Part 15.21 statement

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

# Part 15.105 statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

The LG optimus L9<sup>™</sup> operates on 4G network, based on Long Term Evolution (LTE) technology and Mobile Broadband 4G networks in the United States\*.

Now you can connect easily at high speeds to the Internet, your corporate Intranet, and your email while you're away from the office.

- \* Service not available everywhere.
- \* Information subject to change.

### WiFi Caution

This device is capable of operating in 802.11an/n mode. For 802.11 a/ n devices operating in the frequency range of 5.15~5.25 GHz, they are restricted for indoor operations to reduce any potential harmful interference for Mobile Satellite Services (MSS) in the US. WiFi Access Points that are capable of allowing your device to operate in 802.11 a/n mode (5.15 - 5.25 GHz band) are optimized for indoor use only. If your WiFi network is capable of operating in this mode, please restrict your WiFi use indoors to not violate federal regulations to protect Mobile Satellite Services.

# **Phone Overview**



#### Front-Facing Camera Lens

Use to take a picture of yourself or to video chat on supported applications.

#### **Proximity Sensor**

#### Power/Lock Key

- Press and hold to power on and off, restart, or enable Airplane mode, or change the ringer type.
- Turns your screen on and off and locks it.

#### Touch screen

#### Back Key 🔄

- Returns to the previous screen.
- Closes pop-up menus and dialog boxes.

#### Home Key

- Returns to the Home screen from any screen.
- Press and hold to view a list of the most recently used apps.

#### Menu Key 📃

- Displays available options for the current screen or app.
- oucn and hold to access Google Now and Google Search.

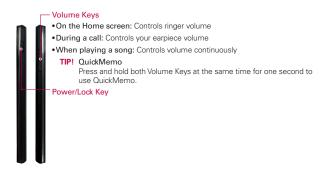
#### NOTE Proximity sensor

TIPI

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

- WARNING! Placing a heavy object on the phone or sitting on it can damage the LCD and touch screen functions. Do not cover the LCD proximity sensor with protective film. This could cause the sensor to malfunction.
  - Tap the Menu Key key whenever you open an application to check what options are available.
    - If your phone has errors when you use it or you cannot turn it on, remove the battery, install it again and turn it on after 5 seconds.





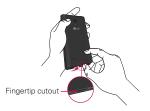
## **Rear View**



#### Installing the Micro SIM card and battery

Before you can start exploring your new phone, you'll need to set it up. To insert the Micro SIM card and battery:

 Hold the phone on your hand firmly. With the other hand, lift the back cover using the fingertip cutout located on the bottom of the cover and pull it up to remove it.



Slide the Micro SIM card into the Micro SIM card slot. Make sure the gold contact area on the card is facing downwards and the notched side is inserted first (see image below).





4. Align the back cover over the battery compartment **1** and press it down until it clicks into place **2**.



#### Charging your phone

A rechargeable Li-ion battery is used to power your phone. A USB adapter, which is included with your phone, is used to charge the battery. Ask your local MPCS sales representative for further details regarding approved batteries and chargers. Before using your phone for the first time, make sure the battery is fully charged. An uncharged battery will fully recharge after 4 hours.



- NOTE Make sure the battery is installed before connecting the USB adapter. If the battery is not installed and the USB adapter is connected, the phone will not operate properly due to prolonged power cycling. Also, removing the battery with the USB adapter connected may damage the device. Please unplug USB adapter before removing battery.
- WARNING! If the touch screen does not function while the phone's in the process of charging, this may be due to an unstable power supply. As a result, disconnect the USB cable from the device or unplug the USB adapter from the power outlet.
- 1. Connect the USB adapter and USB cable.
- Plug the USB cable (as shown below) into the phone's Charger/ Accessory Port. Make sure the 'B' side on the USB cable is facing upwards.

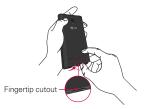


NOTE The battery must be fully charged initially to improve battery lifetime.

### Inserting a microSD card

Insert a microSD™ card to use the camera and other multimedia features. Multimedia contents can be saved in the microSD card.

- NOTE This device supports up to a 32GB microSD card.
- 1. Remove the back cover as previously described.



Insert the microSD card into the slot. Make sure the gold contact area is facing upwards.



#### Removing the microSD card

To safely remove the microSD card from your phone, first you need to unmount it.

- From the Home screen, tap the Menu Key and tap System settings > Storage > Unmount SD card > OK.
- Remove the back cover and battery, then gently pull the microSD card from the slot.
  - WARNING! Do not remove the microSD card without unmounting it first. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted.

#### Formatting the microSD card

WARNING! All files stored on your microSD card are deleted when you format the card.

- 1. From the Home screen, tap the Menu Key and tap System settings > Storage.
- 2. Tap Erase SD card (twice).
- 3. If you set an unlock pattern, enter it and tap **Erase everything**. The card will then be formatted and ready to use.
  - NOTE If there is content on your microSD card, the folder structure may be different after formatting since all the files will have been deleted.

#### Locking and unlocking the screen

If you do not use the phone for a while, the screen will be automatically turned off and locked. This helps to prevent accidental touches and saves battery power.

When you are not using the your phone, press the **Power/Lock Key** to lock your phone.

If there are any programs running when you lock your screen, they may be still running in Lock mode. It is recommended that you exit all programs before entering Lock mode to avoid unnecessary charges (e.g. phone calls, web access and data communications).

To wake up your phone, press the **Power/Lock Key**. The Lock screen will appear. Touch and slide the Lock screen in any direction to unlock your Home screen. The last screen you viewed will open.

## **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 touching it and not lifting your finger until an action occurs. For example, to open a contact's available options, touch and hold the contact in the Contacts list until the context menu opens.

**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 touch it (so you don't drag an item instead). For example, you can slide the screen up or down to scroll through a list, or browse through the different Home screens by swiping from left to right (and vice versa).

**Double-tap** – Double-tap to zoom on a webpage or a map. For example, quickly double-tap a section of a webpage to adjust that section to fit the width of the screen. You can also double-tap to zoom in and out after taking a picture (using the Camera), and when using Maps.

**Pinch-to-Zoom** – Use your index finger and thumb in a pinching or spreading motion to zoom in or out when using the browser or Maps, or when browsing pictures.

Rotate the screen – From many applications and menus, the orientation of the screen adjusts to the device's physical orientation.

 NOTE
 To select an item, touch the center of the icon.

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

#### Home screen

Simply swipe your finger to the left or right to view the panels. You can customize each panel with apps, downloads, widgets and wallpapers.

NOTE Some screen images may be different depending on your phone provider.

On your Home screen, you can view application icons at the bottom of the screen on the Quick Keys bar. The Quick Keys bar provides easy, one-touch access to the functions you use the most.

Context Touch the Phone icon to bring up the touch screen dialpad to make a call.

- I Touch the Contacts icon to open your contacts.
- Touch the Messaging icon to access the messaging menu and create a new message.

Touch the MetroWEB icon to access to the internet

Touch the **Apps** icon to display all of your installed applications. To open any application, simply touch the icon in the applications list.

NOTE To add an icon, touch and hold the desired icon and drag it to the Quick Keys bar. Release it at the desired location. To remove an icon, touch and hold it, then drag it out of the Quick Keys bar.

#### Customizing the Home screen

You can customize your Home screen by adding apps, downloads, widgets or wallpapers. For more convenience using your phone, add your favorite apps and widgets to the Home screen.

#### To add items on your Home screen:

- 1. Touch and hold the empty part of the Home screen.
- 2. Tap the Apps, Downloads or Widgets tab.
- 3. Drag the desired item to the desired location and lift your finger.

#### To remove an item from the Home screen:

Touch and hold the icon you want to remove, drag it to 😭, and lift your finger.

TIP! To add an application icon to the Home screen from the Apps screen, touch and hold the application you want to add and drag it to the desired location.

# TIP! Using folders You can add several app icons in a folder. Drop one app icon over another one on a Home screen panel, and a folder will be created with both icons in it.

#### **Returning to recently-used applications**

- 1. Press and hold the **Home Key \_\_\_\_**. The screen displays a pop-up containing the icons of applications you used recently.
- 2. Touch an icon to open the application. Or touch the Back Key in to return to your previous screen.

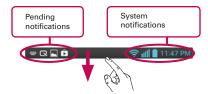
#### Notifications

Notifications alert you to the arrival of new messages, calendar events, and alarms, as well as to ongoing events, such as video downloads.

From the Notifications Panel, you can view your phone's current status and pending notifications.

When a notification arrives, its icon appears at the top of the screen. Icons for pending notifications appear on the left, and system icons showing things like Wi-Fi or battery strength on the right.

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



#### Accessing notifications

Swipe the Status Bar down to open the Notifications Panel. To close the Notifications Panel, swipe the bar that is at the bottom of the screen upwards.

# Quick Settings

Use Quick Settings to easily toggle function settings like Wi-Fi, manage display brightness and more. The Quick Settings are located at the top of the Notifications Panel.

NOTE Touch and hold an icon from the Quick Settings section to view the function's settings menu.

## To rearrange Quick Setting items on the Notification Panel

Open the Notifications Panel and scroll the Quick Settings to the right, then touch . You can then view and rearrange the desired items on the Quick Settings menu. To set more items to be displayed on the Notifications panel, touch .



#### Notification icons on the Status Bar

Notification 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.



No Micro SIM card installed



Vibrate mode

ăıl	No signal	1000	Battery fully charged
≁	Airplane mode	۶	Battery is charging
(îț	Connected to a Wi-Fi network	Ŧ	Downloading data
ſ	Wired headset	<u>+</u>	Uploading data
٩,	Call in progress	¢	Acquiring GPS
<b>!</b>	Call hold	¢	Receiving location data from GPS
*	Missed call	С	Data is syncing
₿	Bluetooth is on	Μ	New Gmail
	System warning	talk	New Google Talk message
$\mathfrak{Q}$	Alarm is set	:	New message
90	New voicemail	▶	Song is playing
<b>*1</b> )	Ringer is silenced	Ŷ	Phone is connected to PC via USB cable or USB tethering is active
0	Portable Wi-Fi hotspot is active	DIRECT	Wi-Fi Direct activated
0	SmartShare music playing	Ŷ	SmartShare on

The icons location in the Status Bar may differ according to the function or service.

NOTE

### **On-screen keyboard**

You can enter text using the on-screen keyboard. The on-screen keyboard appears automatically on the screen when you need to enter text. To manually display the keyboard, simply touch a text field where you want to enter text.

### Using the keypad & entering text

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

Tap to switch to the numbers and symbols keyboard.

Tap to use the voice input function. You can also touch and hold this icon to select the handwriting and settings menu.

Tap to enter a space.

Tap to create a new line in the message field.

Tap to delete the previous character.

#### Entering special characters

The on-screen keyboard allows you to enter special characters (e.g. "á").

For example, touch and hold the desired key (for example, the "a" key). After the desired character appears, slide your your finger over it and lift it off to enter it. When you first turn on your phone, you have the opportunity to activate the network, to sign into your Google Account and select how you want to use certain Google services.

# To set up your Google account:

Sign into a Google Account from the prompted set-up screen.

OR

From the Home screen, tap Apps I > Apps tab > Settings > Accounts & sync > ADD ACCOUNT > Google.

If you have a Google account, touch **Existing**, enter your email address and password, then touch **New** and enter the necessary information to create a new Google Account.

Once you have set up your Google account on your phone, your phone automatically synchronizes with your Google account on the Web.

Your contacts, Gmail messages, Calendar events and other information from these applications and services on the Web are synchronized with your phone. (This will depend on your synchronization settings.)

After signing in, you can use Gmail<sup>™</sup> and take advantage of Google services on your phone.

#### Wi-Fi

With Wi-Fi, you can use high-speed Internet access within the coverage of the wireless access point (AP). Enjoy wireless Internet using Wi-Fi, without extra charges.

#### Connecting to Wi-Fi networks

To use Wi-Fi on your phone, you need to access a wireless access point or 'hotspot'. Some access points are open and you can simply connect to them. Others are hidden or use security features; you must configure your phone to be able to connect to them. Turn off Wi-Fi when you're not using it to extend the life of your battery.

NOTE If you are out of the Wi-Fi zone or have set Wi-Fi to OFF, additional charges may be applied by your mobile operator for mobile data use.

#### Turning Wi-Fi on and connecting to a Wi-Fi network

- From the Home screen, tap Apps > Apps tab > Settings > Wi-Fi from the WIRELESS & NETWORKS section.
- 2. Tap me to turn Wi-Fi on and start scanning for available Wi-Fi networks.
- 3. Tap SEARCH to see a list of active and in-range Wi-Fi networks.

Secured networks are indicated by a lock icon.

4. Touch a network to connect to it.

If the network is secured, you are prompted to enter a password or other credentials. (Ask your network administrator for details)

5. The Status Bar displays icons that indicate Wi-Fi status.

#### Bluetooth

You can use Bluetooth to send data by running a corresponding application, but not from the Bluetooth menu as on most other mobile phones.

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

#### Turning on Bluetooth and pairing up your phone with a Bluetooth device

You must pair your device with another device before you connect to it.

- From the Home screen, tap Apps > Apps tab > Settings > Bluetooth from the WIRELESS & NETWORKS section.
- Tap \_\_\_\_\_ to turn Bluetooth on. You will see the option to make your phone visible and option to search devices. Then tap Search for devices to view the devices in range.
- 3. Choose the device you want to pair with from the list.
- 4. Once the pairing is successful, your device will connect to the device.

NOTE Some devices, especially headsets or hands-free car kits, may have a fixed Bluetooth PIN, such as 0000. If the other device has a PIN, you will be asked to enter it.

#### Send data using the Bluetooth wireless feature

Open the item and tap 
 OR

Touch and hold the item and select Share.

2. Tap Bluetooth to share via Bluetooth.

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

3. Search for and pair with a Bluetooth-enabled device.

#### Receive data using the Bluetooth wireless feature

- From the Home screen, tap Apps > Apps tab > Settings > Bluetooth.
- Tap <u>end</u> to turn Bluetooth on and tap the Make phone visible checkbox to allow other devices to search for yours.
  - NOTE To select the length of time that your device will be visible, tap the Menu Key => Visibility timeout.
- 3. Pair the devices and tap **Accept** when you receive a Bluetooth Authorization Request to accept the file(s).

#### Tethering

You can use your phone to provide a data connection to a computer by activating data tethering and connecting the phone and computer with a USB cable.

#### To tether your phone with your computer using the USB

- 1. Connect your phone to your computer with a USB cable.
- Tap the Menu Key > System settings > More... > USB tethering & Mobile Hotspot > USB tethering. A checkmark indicates that the function is active.
  - NOTE To use your phone's tethering capability, you must have the Smartphone Mobile Hotspot service added to your rate plan. Performance may vary depending on the number of devices connected and other factors. You cannot access your phone's microSD card on your computer when using USB tethering.

# **Smartphone Mobile Hotspots**

You can also use your phone to provide a mobile broadband connection for up to 8 other devices. Create a hotspot and share your connection.

To create a portable hotspot, tap the Menu Key > System settings > More... > USB tethering & Mobile Hotspot > Mobile HotSpot. A checkmark indicates that the function is active. Then tap Configure Mobile HotSpot and set a password upon first use.

NOTE To use your phone's Hotspot capability, you must have the Smartphone Mobile Hotspot service added to your rate plan. In addition, your Smartphone Mobile Hotspot service cannot be used at the same time as Wi-Fi. Please close your WiFi connection prior to launching this service. Performance may vary depending on the number of devices connected and other factors. If you do not use a password, other unauthorized devices be able to use your Mobile Hotspot connection.

# Enabling Wi-Fi Direct to share through SmartShare

Wi-Fi Direct automatically scans nearby Wi-Fi Direct devices and the searched devices are listed as they are found. This allows you to select a specific device to share multimedia data with through SmartShare.

- NOTE Wi-Fi Direct cannot be enabled while using other Wi-Fi functions.
- From the Home screen, tap Apps > Apps tab > Settings > Wi-Fi from the WIRELESS & NETWORKS section.
- 2. Tap e to turn Wi-Fi on and touch the Menu Key = > Wi-Fi Direct.
- 3. Select a device to connect with from the scanned device list.

**CREATE GROUP** – Touch to activate group owner mode, which enables the legacy Wi-Fi devices to connect by scanning your phone.

NOTE When your phone becomes a group owner it will consume more battery power than when it is a client. The Wi-Fi Direct connection does not provide Internet service. As a result, additional costs may be incurred when connecting and using online services. Check data charges with your network provider.

#### **SmartShare**

SmartShare uses DLNA (Digital Living Network Alliance) technology to share digital content over a wireless network. Both devices must be DLNA certified to support this feature.

#### To turn SmartShare on and allow content sharing

- 1. From the Home screen, tap Apps IIII > Apps tab > SmartShare Sales
- 2. Touch the Menu Key = > Settings.
- Touch Discoverable to allow your device to be detected by other devices.
- Touch Always accept requests if you would like to automatically accept sharing requests from other devices.
- Touch Receive files if you would like to allow other devices to upload media files to your phone.
  - NOTE Make sure that the internal storage is correctly installed and the Receive files option in the Settings menu is checked.
- Under the Shared contents section, touch to checkmark the types of content you would like to share. Choose from Photos, Videos, and Music.
- 5. SmartShare is now activated and ready to share content.

### To control your renderer devices

Let your renderer device (e.g., TV) play multimedia content from your remote content library (e.g., PC).

- NOTE Make sure that the DLNA functionality of your devices is properly configured (e.g., for TV and PC).
- 1. From the Home screen, tap Apps IIII > Apps tab > SmartShare

- 2. Touch the **To** button **I** and select the device from the renderer device list.
- 3. Touch the From button and select the device of the remote content library.
- 4. You can browse the content library.
- 5. Touch and hold a content thumbnail and touch Play or touch the Menu Key => Play.

#### To share content from your phone to your renderer device (e.g.TV)

NOTE Make sure that your renderer device is properly configured.

- While playing your music using the Music application, touch 
   I is at the top of the screen.
- : Need to be connected network
- Select the device on network
- content is being shared through SmartShare.
- 2. Select the device from renderer lists to play the files.
  - NOTE Follow the similar steps to use the Gallery, Video Player, or Polaris Office to share contents.
  - NOTICE Make sure that your device is connected to your home network using Wi-Fi connection to use this application..
    - Some DLNA enabled devices (e.g. TV) support only the DMP feature of DLNA and will not appear in the renderer device list.
    - · Your device may not be able to play some content.

#### To download contents from the remote content library

- 1. From the Home screen, tap Apps IIII > Apps tab > SmartShare
- 2. Touch the From button 🚍 and select the device for the remote content library.
- 3. You can now browse the content library.
- 4. Touch and hold a content thumbnail and then touch Download.

NOTICE A few types of content are not supported.

#### To upload content from the remote content library

- 1. From the Home screen, tap Apps IIII > Apps tab > SmartShare
- 2. Touch the From button = and select My phone.
- 3. You can browse the local content library.
- 4. Touch and hold a content thumbnail and then touch Upload.
- 5. Select the device for the remote content library to be uploaded.
  - NOTICE Some DLNA enabled devices do not support the DMS upload functionality and will not upload files. A few types of content are not supported.

## Making a call

- 1. From the Home screen, tap Phone 🕔 to open the keypad.
- 2. Enter the number on the keypad. To delete a digit, tap Clear 💽.
- 3. Tap Call 📞 to make a call.
- 4. To end a call, tap End 🧖

TIP!

To enter "+" to make international calls, touch and hold  $\bigcirc$  +.

# **Calling your contacts**

- 1. From the Home screen, tap Apps IIII and then tap **Contacts** to open your contacts.
- Scroll through the contact list or tap the Search contacts box and enter the first letter(s) of the contact you want to call. You can also tap a letter along the right side of the screen to access names starting with the chosen letter.
- 3. In the list that is displayed, tap the contact you want to call.
- 4. In the Contact Info screen, tap the phone number you wish to call.

# Answering and rejecting a call

# Locked screen

To answer an incoming call when the screen is locked, swipe **Answer t** in any direction. Swipe **Decline** in any direction to decline an incoming call.

# Unlocked screen

To answer an incoming call when the screen is unlocked, tap **Answer C**. To decline the call, tap **Decline .** 

TIP! Decline with message You can send a message quickly using this function. This is useful if you need to reject a call with message during a meeting.

# Adjusting the in-call volume

To adjust the in-call volume during a call, use the Volume Keys on the left side of the phone.

### Making a second call

- 1. During your initial call, tap the Menu Key and select Add call.
- 2. Dial the number or search your contacts.
- 3. Tap Call 📞 to connect the call.
- Both calls will be displayed on the call screen. Your initial call will be put on hold.
- 5. Tap the call entry on the screen to toggle between active calls or tap **Merge calls** to merge the calls.
- 6. To end active calls, tap **End \_\_\_**. If there is no active call, it will end the call on Hold.

# **Ending a Call**

Tap End 🦰 to end a call.

NOTE To redial recent numbers, touch Redial 📞 at the end of the call or find the number within the Call logs and tap Call 💽 to the right of the entry.

If you exit the current call screen and return to the Home screen, you will be notified that you are still on an active call by the green phone icon within the Status Bar.



# Ending a Call from the Status Bar

- 1. Touch and drag the Status Bar down to open the Notifications Panel.
- 2. Tap End call at to end the currently active call.

#### Viewing your call logs

From the Home screen, tap **Phone**, then tap the **Call logs** tab. View a complete list of all dialed, received, and missed voice calls. TIP! Tap any single call log entry to view the date, time, and duration of the call. Tap the Menu Key , then tap Clear to delete entries individually or Clear all to delete all.

# **Call settings**

You can configure phone call settings, such as call forwarding, and other special features offered by MetroPCS.

- 1. From the Home screen, tap the Menu Key and tap System settings.
- 2. Tap Call and set any desired options.

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

- From the Home screen, tap Apps and then tap Contacts to open your contacts.
- Tap the Search contacts box and enter the contact name using the keypad. You can also tap a letter along the right side of the screen to access names starting with the chosen letter.

#### Adding a new contact

- From the Home screen, tap Phone and enter the new contact's number.
- Tap Add to Contacts > Create new contact. Select the desired account (if applicable).
- 3. If you want to add a picture to the new contact, tap . Choose from **Take photo** to take a picture using the camera or **Select from Gallery**. Then browse for an image and select it.
- 4. Tap 📀 to enter more specific name information.
- 5. Enter the details about your contact.
- 6. Tap Save to save the contact entry.

#### Favorite Contacts

You can classify frequently called contacts as favorites.

#### To add a contact to your favorites

- From the Home screen, tap Apps and then tap Contacts 1 to open your contacts.
- 2. Tap a contact to view its details.
- Tap the star to the right of the contact's name. The star turns gold and the contact is added to your favorites.

## To remove a contact from your favorites list

- From the Home screen, tap Apps and then tap Contacts 1 to open your contacts.
- 2. Tap the Favorites tab to view your favorite contacts.
- 3. Tap a contact to view its details.
- Tap the gold star to the right of the contact's name. The star turns grey and the contact is removed from your favorites.

# Creating a group

- From the Home screen, touch Apps iiii and then touch Contacts 1 to open your contacts.
- 2. Touch the **Groups** tab, then touch the **Menu Key** and select **New** group.
- 3. Enter a name for the new group. You can also set a ringtone for the group.
- 4. Touch Save to save the group.
  - NOTE If you delete a group, the contacts assigned to that group will not be lost. They will remain in your contacts.

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

## **Conversation view**

Messages exchanged with another party are displayed in chronological order so that you can conveniently see an overview of your conversations.

## Sending a message

- From the Home screen, tap Messaging , then tap Compose to create a new message.
- Enter a contact name or phone number in the To field. As you enter the contact name, matching message appear. You can tap a suggested recipient. You can also add multiple message
- 3. Tap the text field to start entering your message.
- 4. Tap the Menu Key is to open the options menu. Choose from any of the available options.
- 5. Tap Send(or Send MMS) to send your message.
  - WARNING! 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 your service plan will be decremented accordingly.

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

## **Using smilies**

Liven up your messages using smilies.

When writing a new message, tap the Menu Key a, then tap Insert smiley.

## Changing your message settings

Your phone's message settings are predefined, so you can send messages immediately. You can change the settings based on your preferences.

• From the Home screen, tap Messaging \_ > Menu Key = > Settings.

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

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

## Managing an email account

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

After the initial setup, Email displays the contents of your inbox. If you have added more than one account, you can switch among accounts.

## To add another email account:

Open the Email application and tap the Menu Key > Accounts > Menu Key > Add account.

#### To change an email account's settings:

 Open the Email application and tap the Menu Key > Account settings.

## To delete an email account:

Open the Email application and tap the Menu Key 
 > Accounts >
 Menu Key 
 > Remove account > tap an account you want to delete
 > Remove > Yes.

## Working with account folders

Open the Email application and tap the Menu Key and select Folders. Each account has an Inbox, Outbox, Sent and Drafts folder. Depending on the features supported by your account's service provider, you may have additional folders.

# Composing and sending email

#### To compose and send a message

- 1. While in the Email application, tap Compose 🗹
- Enter an address for the message's intended recipient. As you enter text, matching addresses will be proposed from your Contacts. Separate multiple addresses using semicolons.
- 3. Tap the Cc and Bcc fields to copy contacts and tap Attach 🖉 to attach files, if required.
- 4. Enter the subject and your message.
- 5. Tap Send **>** to send the message.

If you aren't connected to a network, for example, if you're working in airplane mode, the messages that you send will be stored in your Outbox folder until you connect to a network again. If it contains any pending messages, the Outbox will be displayed on the Accounts screen.

TIP! When a new email arrives in your Inbox, you will be notified by a sound or vibration. Tap the email notification to stop receiving notifications.

#### 40 Camera

To open the Camera application, tap **Camera** on the Home screen.



## Getting to know the viewfinder

- **()** Swap camera Switch between the rear–facing camera lens and the front–facing camera lens.
- 2 Voice shutter To take a photo, say one of the following words: Cheese, Smile, Whisky, Kimchi or LG.
- 3 Shot mode Choose from Normal, Panorama or Continuous shot.
- O Flash Allows you to turn on the flash when taking a photo in dark conditions.
- Settings Touch this icon to open the settings menu. See Using the advanced settings on the following page.
- 6 Mode switch Touch this icon and drag it downwards to switch to video mode.
- Ocapture Touch to capture a picture.
- 3 Gallery Touch to view the last photo you captured. This enables you to access your Gallery and view saved photos while in camera mode.

NOTE Please ensure the camera lens is clean before taking pictures.

## Using the advanced settings

In the viewfinder, tap 🔯 to open the advanced options. You can change the camera settings by scrolling through the list. After selecting the option, tap the Back Key 📺.

Ņ	Touch if you want to change the viewfinder menu.
Ð,	Zoom in or out.
Z	Defines and controls the amount of sunlight entering the photo.
۵	Focuses on a specific spot.
	Selects photo resolution. If you choose high resolution, file size will increase, which means you will be able to store fewer photos in the memory.
100M	Finds the appropriate color and light settings for the current environment.
150	The ISO rating determines the sensitivity of the camera's light sensor. The higher the ISO, the more sensitive the camera. This is useful in darker conditions when you cannot use the flash.
WB	Improves color quality in various lighting conditions.
8	Applies artistic effects to your pictures.
৩	Sets a delay after the capture button is pressed. This is ideal if you want to be in the photo.
\$	Activate this to use your phone's location-based services. Take pictures wherever you are and tag them with the location. If you upload tagged pictures to a blog that supports geo tagging, you can see the pictures displayed on a map. <b>NOTE</b> This function is only available when the GPS function is active.
<u>:</u> •)	Selects a shutter sound.
	Automatically shows you the picture you just took.

## 42 Camera

TIP!

	Set the storage location for your pictures. Choose from Internal memory and SD card.	
63	Restore all camera default settings.	
0	Touch this whenever you want to know how a function works. This icon will provide you with a quick guide.	

 When you exit the camera, some settings return to their defaults, such as white balance, color effect, timer and scene mode. Check these before you take your next photo.

 The setting menu is superimposed over the viewfinder, so when you change photo color or quality elements, you will see a preview of the changed image behind the Settings menu.

## Taking a quick photo

- 1. Open the Camera application.
- 2. Holding the phone horizontally, point the lens towards the subject you want to photograph.
- 3. A focus box will appear in the center of the viewfinder screen. You can also tap anywhere on the screen to focus on that spot.
- 4. When the focus box turns green, the camera has focused on your subject.
- 5. Touch is to capture the photo.

## Once you've taken a photo

Your captured photo will appear on the screen if Auto review is set to On (refer to Using the advanced settings). Touch image preview in the bottom right corner of the screen to view the last photo you took. The following options are available:

Touch to share your photo using the SmartShare function.

Touch to take another photo immediately.

<	
÷	

Touch to send your photo to others or share it via social network services.

Touch to delete the photo.

TIP!

If you have a social networking account and set it up on your phone, you can share your photo with your social networking community.

Touch the Menu Key 📰 to open all advanced options.

Set image as – Touch to use the photo as a Contact photo, Home screen wallpaper or Lock screen wallpaper.

Move - Touch to move the photo to another place.

Copy – Touch to copy the selected photo and save it to another album.

Rename - Touch to edit the name of the selected photo.

Rotate left/right - To rotate left or right.

**Crop** – Crop your photo. Move your finger across the screen to select the area to be cropped.

Edit – View and edit the photo.

	Applies a brightness effect to your photo.
FX	Applies artistic effects to your photos.
	Applies color effects to your photos.
Þ	Applies additional options to your photos.

Slideshow – Automatically shows you the images in the current folder one after the other.

Details - Find out more information about the contents.

# Viewing your saved photos

You can access your saved photos when in camera mode. Just tap the image preview in the bottom right corner of the screen and your Gallery will be displayed.

#### 44 Camera

- · To view more photos, scroll left or right.
- To zoom in or out, double-tap the screen or place two fingers and spread them apart (move your fingers closer together to zoom out).



#### Getting to know the viewfinder

Swap camera – Switch between the rear-facing camera lens and the front-facing camera lens.

Video size – Touch to set the size (in pixels) of the video you are recording.

Output Description of the state of the st

(J) Flash – Allows you to turn on the flash when taking a video in dark conditions.

Settings – Touch this icon to open the settings menu. See Using the advanced settings on the following page.

6 Mode switch – Touch this icon and drag it upwards to switch to camera mode.

Providence - Record - Starts recording video.

3 Gallery – Touch to view the last video you recorded. This enables you to access your Gallery and view your saved videos while in video mode. TIP! When recording a video, place two fingers on the screen and pinch to use the Zoom function.

## Using the advanced settings

Using the viewfinder, touch **t** to open all the advanced options.

ij	Touch if you want to change the viewfinder menu.
Ð,	Zoom in or out.
N	Defines and controls the amount of sunlight entering the video.
WB	Improves color quality in various lighting conditions.
۲	Choose a color tone to use for your new view.
\$	Activate this to use your phone's location-based services.
Ŷ	Allows you to record with or without sound.
▲	Auto review automatically shows you the video you just recorded.
	Set the storage location for your pictures. Choose from Internal memory and SD card.
5	Restore all video camera default settings.
0	Touch this if you want to know how a function works. This icon will provide you with a quick guide.

# Recording a quick video

- 1. Open the Camera application and touch the Mode switch button.
- 2. The video camera viewfinder appears on the screen.
- 3. Holding the phone, point the lens towards the subject you wish to capture in your video.
- 4. Touch once to start recording.
- 5. A timer showing the length of the video will appear.
- 6. Touch on the screen to stop recording.

NOTE Touch (iii) on the screen to take a picture while you're recording.

## After recording a video

A still image representing your video will appear on the screen if Auto review is set to On. Touch the image preview in the bottom right corner of the screen to view the video. The following options are available:

	Touch to share your video using the SmartShare function.
D	Touch to record another video immediately.
\$	Touch to send your video to others or share it via social network services.
1	Touch to delete the video.

## Watching your saved videos

- 1. In the viewfinder, touch the image preview in the bottom right corner of the screen.
- 2. Your Gallery will appear on the screen.
- 3. Tap a video to play it automatically.

## Adjusting the volume when viewing a video

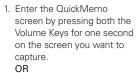
To adjust the volume of a video while it is playing, use the Volume Keys on the left side of the phone.

# QuickMemo

The  $\ensuremath{\text{QuickMemo}}$  feature allows you to create memos and capture screen shots.

Capture screens, draw on them, and share them with family and friends with QuickMemo.

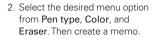




Open the Notifications Panel and tap .









3. Tap in the Edit menu and select it to save the memo. To exit QuickMemo at any time, tap the Back Key .

NOTE Please use a fingertip while using the QuickMemo. Do not use your fingernail.

## Using the QuickMemo options

You can easily use the QuickMenu options when using the QuickMemo.

٥	Touch to keep the current memo on the screen and use other phone features simultaneously.
	Selects whether to use the current image or a note image as your background.
* *	Allows you to undo and redo previous actions.
2	Selects the pen type and the color.
< second	Erases the memo that you created.
Y	Touch to send your memo to others or share it via social network services.
	Saves the memo in the Gallery.

## Viewing the saved QuickMemo

From the Home screen, tap Apps > Gallery and select the QuickMemo album.

# Live Zooming

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

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



#### NOTE

- When playing a video, slide the screen up or down to adjust the screen brightness.
- When playing a video, slide the screen left or right to rewind or fast-forward.
- Do not to press too hard; the touch screen is sensitive enough to pick up a light, but firm touch.

## QSlide

The **OSlide** function enables an overlay on your phone's display for easy multi-tasking.



0		Tap to exit the QSlide function	
		and return to full window.	
0	-0	Slide to adjust transparency.	
3	×	Tap to exit the QSlide function.	

NOTE The QSlide function can support up to two windows at the same time.

1. Open the Notifications Panel and tap the desired app from the **QSlide** apps section.

#### OR

While using an application that supports QSlide, tap \. The function will be displayed continuously as a small window on your screen.

2. Slide to adjust the transparency level.

## Gallery

You can store multimedia files in internal or external memory for easy access to all your multimedia files. Use this application to view multimedia files like pictures and videos.

From the Home screen, tap **Apps** = **Apps** tab > **Gallery** = You can manage and share all your image and video files with Gallery.

- Some file formats are not supported, depending on the software installed on the device.
  - Some files may not play properly, depending on how they are encoded.

#### Viewing pictures

Launching Gallery displays your available folders. When another application, such as Email, saves a picture, the download folder is automatically created to contain the picture. Likewise, capturing a screenshot automatically creates the Screenshots folder. Tap a folder to open it.

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

## Zooming in and out

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

- Double-tap anywhere to zoom in. Double-tap again to return to fullscreen view.
- Spread two fingers apart on any place to zoom in. Pinch in to zoom out.

## **Playing videos**

Video files display the 🕥 icon in the preview. Select a video and tap 🚯 to play it.

#### Viewing photo and video options

When viewing a photo or video, tap the **Menu Key** and use the advanced editing options.

## Deleting images and videos

Use one of the following methods:

- In a folder, tap and select the photos and videos you want to delete, then tap Delete.
- When viewing a photo or video, tap

## Setting as wallpaper

When viewing a photo, touch the Menu Key **Set image as** and select **Home screen wallpaper** or Lock screen wallpaper.

NOTE

- Some file formats are not supported, depending on the device software.
- If the file size exceeds the available memory, an error can occur when you open files.

## Videos

Your phone has a video player that lets you play all of your favorite videos.

## Playing a video

- 1. From the Home screen, tap Apps -> Apps tab > Videos
- 2. Select the video you want to play.

Ш	Touch to pause video playback.
	Touch to resume video playback.
₩	Touch to go 10 seconds forward.
•	Touch to go 10 seconds backward.
<b>4</b> 0	Touch to manage the video volume.
	Touch to change the ratio of the video screen.
N K N K	Touch access QSlide and display the video in small window.
G	Touch to share your video via the SmartShare function.
Ð	Touch to lock the window.

To change the volume while watching a video, press the Volume Keys on the left side of the phone.

## 52 Multimedia

Touch and hold a video in the list to access the following options: Share, Delete and Details.

## Music

Your phone has a music player that lets you play all your favorite tracks. To access the music player, from the Home screen, tap Apps tab > Music \_\_\_\_\_.

#### Add music files to your phone

Start by transferring music files to your phone:

- Transfer music using Media sync (MTP).
- Download from the wireless Web.
- Synchronize your phone to a computer.
- Receive files via Bluetooth.

#### Transfer music using Media sync (MTP)

- 1. Connect the phone to your PC using the USB cable.
- Select the Media sync (MTP) option. Your phone will appear as another hard drive on your computer. Click on the drive to view it. Copy the files from your PC to the drive folder.
- When you're finished transferring files, swipe the Status Bar down and touch USB connected > Charge only. You may now safely unplug your device.

#### Playing a song

- 1. From the Home screen, tap Apps > Apps tab > Music 🧔
- 2. Touch the Songs tab.
- 3. Select the song you want to play.

ų	Touch to find the files with YouTube	
	Touch to share your music via SmartShare function.	

$\times$	Touch to set shuffle mode
ţţ	Touch to set repeat mode
	Touch to manage the music volume
11	Touch to pause playback
	Touch to resume playback
	Touch to skip to the next track on the album or in the playlist. Touch and hold to fast-forward.
×	Touch to go back to the beginning of the song. Touch twice to return to the previous song. Touch and hold to rewind.
*	Touch to set the current song as a favorite
II	Touch to see the current playlist
	Touch to return to the music library.

To change the volume while listening to music, press the Volume Keys on the left side of the phone.

Touch and hold any song in the list to access the following options: Play, Add to playlist, Share, Set as ringtone, Delete, Details and Search.

NOTE 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, check the national laws of the relevant country concerning the use of such material.

## 54 Utilities

## Setting your alarm

- 1. From the Home screen, tap Apps is > Apps tab > Alarm/Clock 2 >
- 2. Set the desired alarm time.
- 3. Set Repeat, Snooze duration, Vibration, Alarm sound, Alarm volume, Auto app starter, Puzzle lock and Memo.
- 4. Touch Save.

NOTE

To change alarm settings in the alarm list screen, touch the Menu Key and select Settings.

# Using your calculator

- 1. From the Home screen, tap Apps III > Apps tab > Calculator III
- 2. Touch the number keys to enter numbers.
- For simple calculations, touch the function you want to perform (+, -, x or ÷) followed by =.
- 4. For more complex calculations, touch the Menu Key , select the Advanced panel, then choose the desired function.

NOTE To view the calculation history, tap 🗸

# Adding an event to your calendar

- 1. From the Home screen, tap Apps i > Apps tab > Calendar 18.
- 2. Tap to change the calendar view (Day, Week, Month, Agenda).
- 3. Tap on the date for which you wish to add an event and touch (. Then select the calendar you wish to add the event to (if necessary).
- 4. Touch the Event name field and enter the event name.
- 5. Touch the **Location** field and enter the location. Check the date and enter the time you wish your event to start and finish.
- If you wish to add a note to your event, touch the Description field and enter the details.
- 7. If you wish to repeat the alarm, set **REPEAT** and set **REMINDERS**, if necessary.

8. Touch Save to save the event in the calendar.

## File manager

The **File Manager** application allows you to manage files in your internal/ external storage.

## To open the File Manager application

From the Home screen, tap Apps IIII > Files Manager IIII >

## File Manager Options

- 📷 : Allows you to create a new folder.
- 🔚 : Allows you to move files and folders to another folder.
- = : Allows you to delete files and folders.
- a: Allows you to search for files.

Tap the Menu Key 🔤 to access the following options.

Sort by: Allows you to sort files and folders by Name, Size, Date, and Type.

View by: Allows you to change the view mode to List or Grid.

Copy: Allows you to copy files and folders and paste them in another location.

Share: Allows you to share files and folders with others.

Upload: Allows you to upload files and folders to online storge

Zip: Allows you to compress files and folders into a .zip file.

Exit: Allows you to exit the application.

# **Application Manager**

You can manage your programs with Application Manager.

- 1. From the Home screen, tap Apps Application Manager
- 2. The Application Manager lists your installed apps along with their size and version.

3. Tap Uninstall to uninstall the app, then tap OK to confirm.

## **Application Manager Settings**

To adjust the Application Manager settings, tap the **Menu Key** and select **Settings**. The following settings are available.

- Update notification cycle: Allows you to set the notification cycle for app updates.
- Auto app update: Automatically updates apps if available.
- Update over Wi-Fi only: Updates apps only via Wi-Fi.

## Visual Voicemail

The Visual Voicemail application allows users to view a list of people who left voicemail messages on your phone. You can listen to your message without being limited by the date.

- From the Home screen, tap Apps IIII > Visual Voicemail IIII
- 2. A list of the voicemail messages will be displayed.
  - Important! If this is the first time accessing Visual Voicemail, you may be prompted to enter a new PIN code and touch Next to activate Visual Voicemail.
  - NOTE To use your phone's Visual Voicemail capability, you must have the Visual Voicemail service added to your rate plan.
- 3. Tap an on-screen voicemail message to play it back.

## Voice Recorder

Use the voice recorder to record voice memos or other audio files.

## Recording a sound or voice

- 1. From the Home screen, tap Apps IIII > Apps tab > Voice Recorder
- 2. Touch o to begin recording.
- 3. Touch **•** to end the recording.
- 4. Touch > to listen to the recording.
  - NOTE Touch Touch to access your list of recordings. You can listen to the saved recordings. The available recording time may differ from actual recording time.

# Sending the voice recording

- Once you have finished recording, you can send the audio clip by touching .
- 2. Choose from any of the available methods for sharing.

# Task Manager

You can manage your applications using Task Manager. You can easily check the number of applications that are currently running and shut down certain applications.

# **Task Manager Options**

- Touch Stop to stop individual apps.
- Tap Stop all to stop all currently running apps.
- Tap the Menu Key at to access Help, Sort by, Settings

# Polaris Office 4

Polaris Office 4 is a professional mobile office solution that lets users conveniently view various types of office documents, including Word, Excel and PowerPoint files, anywhere or anytime, using their mobile devices.

From the Home screen, tap Apps > Apps tab > Polaris Office 4

# Viewing files

Mobile users can now easily view a wide variety of file types, including Microsoft Office documents and Adobe PDF, right on their mobile devices. When viewing documents using Polaris Office 4, the objects and layout remain the same as in the original documents.

# FileShare

This feature allows you to share files from your phone.

- 1. From the Home screen, tap Apps > Apps tab > FileShare
- 2. Choose the types of content you would like to share. Choose from Images, Videos, Music and Documents.

- 3. Tap Send file in the upper right corner of the screen, then checkmark the file(s) you want to share.
- Tap Send at the bottom of the screen to begin scanning for available devices, then select the device you want from the list.
- 5. Tap **Send** at the bottom of the screen to use the selected device to send your file(s).

## Backup

## About backing up and restoring smartphone data

It is recommended that you regularly create and save a backup file on the internal storage, especially before updating any software. Maintaining a current backup file in storage memory may allow you to recover smartphone data if your smartphone is lost, stolen, or corrupted by an unforeseen issue.

This Backup application is supported between LG smartphones, other S/W or OS versions. As a result, when you buy the new LG smartphone, you can backup the current phone data to your new phone.

If you have the Backup application preloaded on your smartphone, you can backup and restore most of your smart phone data, including downloaded and pre-installed applications, bookmarks, calendar entries, call logs, contacts, home screen settings, messages, and system settings. You may also:

- Perform a manual backup of your smartphone data.
- Schedule automatic backups of your smartphone data.
- Restore your smartphone data.
  - NOTE Please note that the Backup function does not support the backup of User data & Media data (Picture/Video/Music). Please backup those files using the Media sync (MTP). Connect your phone to your computer using a USB cable and touch Media sync (MTP).
  - WARNING! To protect against unexpected shutoff during backup or restore operations, due to insufficient battery power, you should always keep your battery fully charged.

## Backup your smart phone data

1. From the Home screen, tap Apps 🔜 > Apps tab > Backup 🔤 >

Manual backup > Internal Storage or SD Card > Next.

- 2. Touch New backup to enter a name for your backup file and select Next.
- Select the check box next to the item you want to backup and select Backup to backup.

# Restoring smartphone data

To restore data that is in your internal memory, Media sync mode must be turned off.

NOTE All files that are stored on your smart phone are deleted before the backup file is restored.

- 1. From the Home screen, tap Apps > Apps tab > Backup = Restore
- On the Restore screen, select a backup file that contains the data you wish to restore.
- Select the item you wish to restore and tap Restore to restore it to your phone.

**NOTE** Please note that your phone data will be overwritten with the content of your backup.

- If the backup file is encrypted, type the password that you created to encrypt it.
- 5. When all selected files have been restored, your phone will reboot.

# Enable encryption

You can set Enable encryption to encrypt your backup files for extra protection.

- 1. Open the Backup application and tap 💕 at the upper right corner of the screen.
- 2. Enter and confirm your password and tap Done.

# Google+

Use this application to stay connected with people via Google's social network service.

From the Home screen, tap Apps > Apps tab > Google+ 8

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

## 60 Utilities

## Voice Search

Use this application to search webpages using voice.

- 1. From the Home screen, tap Apps > Apps tab > Voice Search U.
- 2. Tap the mic icon and say a keyword or phrase when **Speak now** appears on the screen.
- 3. Select one of the suggested keywords that appear.

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

## **Downloads**

Use this application to see what files have been downloaded.

From the Home screen, tap Apps IIII > Apps tab > Downloads 🔽

# MetroWEB

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

NOTE

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

From the Home screen, tap MetroWEB

## Using the Web toolbar

Touch and hold the Web toolbar and slide it upwards with your finger to open.

	Touch to go back one page.
	Touch to go forward one page, to the page you connected to after the current one. This is the opposite of what happens when you touch the <b>Back Key</b> , which takes you to the previous page.
	Touch to go to the Home page.
Ð	Touch to add a new window.
X	Touch to access your bookmarks.

## Viewing webpages

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

## Opening a page

To open a new page, tap 🚯 on the Browser toolbar.

To go to another webpage, tap 2. scroll up or down, and tap the page to view it.

## Searching the web by voice

Tap the web address field, tap 🎩, speak a keyword, and then select one of

the suggested keywords that appear.

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

#### Bookmarks

To bookmark the current webpage, tap the Menu Key **Save to bookmarks**. Enter the desired information and tap OK.

To open a bookmarked webpage, tap  $\fbox$  on the Browser toolbar and select one.

## History

Tap in on the Browser toolbar and select the **History** tab to open a webpage from the list of recently-visited webpages. To clear the history, tap the **Menu Key** is > **Clear all history**.

## Using QSlide

Use this feature to access the Internet without closing the current application.

While viewing content on the Browser, tap  $\boxed{}$  You can then browse other information on your phone. To view the browser in full screen, tap  $\boxed{}$ . To close the browser, tap  $\boxed{}$ .

## Chrome

Use Chrome to search for information and browse webpages.

From the Home screen, tap Apps => Apps tab > Chrome

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

#### Viewing webpages

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

## Opening a page

To go to a new page, tap in > New tab.

To go to another webpage, tap 12, scroll up or down and tap the page to select it.

## Searching the web by voice

Tap the address field, tap U, speak a keyword and select one of the suggested keywords that appear.

#### Syncing with other devices

Sync open tabs and bookmarks to use with Chrome on another device when you are logged in with the same Google account.

To view open tabs on other devices, tap the Menu Key **E** > Other devices. You must be signed in to the same Google account on all devices. Select a webpage to open.

## Viewing bookmarks

To view bookmarks, tap 쑺.

## Access the Settings menu

1. From the Home screen, tap Apps > Apps tab > Settings OR \_\_\_\_

From the Home screen, tap the Menu Key = > System settings.

2. Select a setting category and select an option.

# WIRELESS & NETWORKS

## < Airplane mode >

Tap the **Airplane mode** switch **form** to toggle between On and Off. Activating Airplane mode disables all wireless connections.

## <Wi-Fi>

Tap the Wi-Fi switch context to turn Wi-Fi on and connect to available Wi-Fi networks. Tap again to turn Wi-Fi off.

# TIP! How to obtain the MAC address To set up a connection in some wireless networks with MAC filters, you may need to enter the MAC address of your phone in the router. You can find the MAC address in the following user interface: From the Home screen, tap Apps > Settings > Settings > Settings

## < Bluetooth >

Tap the **Bluetooth** switch and to turn Bluetooth on and connect to available Bluetooth devices. Tap again to turn Bluetooth off.

## < Mobile data >

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

## < Call >

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

Fixed dialing numbers – Turn on and compile a list of numbers that can be called from your phone. You'll need your PIN2, which is available from your operator. Only numbers within the fixed dial list can be called from your phone.

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

Call reject – Allows you to set the call reject function. Choose from Call reject mode or Rejection list.

**Decline with message** – When you want to reject a call, you can send a quick message using this function. This is useful if you need to reject a call during a meeting.

**Power button ends call** – Allows you end calls by pressing the Power/Lock Key instead of the End button on your screen.

TTY mode – Opens a dialog box to set TTY mode to communicate with other TTY devices.

Hearing aids - Checkmark enables hearing aid compatibility.

**Call forwarding** – Choose whether to divert all calls when the line is busy, when there is no answer or when you have no signal.

## < More... >

USB tethering & Mobile Hotspot – Allows you to share mobile network via Wi-Fi and you can configure portable Wi-Fi hotspot settings.

#### Wi-Fi Calling

Important! Wi-Fi Calling requires that you use the SIM card that is shipped with your phone. Also, you must register your address for 9-1-1. Wi-Fi Calling will not work until you have registered for 9-1-1 by logging into your account at www.metropcs.com. Go to your profile and click Customer Info and continue on to enter your address.

## About Wi-Fi Calling

Wi-Fi Calling can improve your coverage and allows you to make phone calls and send messages over a Wi-Fi network (when a Wi-Fi network is available). Unless your rate plan provides otherwise, Wi-Fi Calling minutes count the same as MPCS cellular calling minutes on your phone bill.

- To use Wi-Fi Calling, you must first turn on Wi-Fi, connect to a Wi-Fi network, and then turn on Wi-Fi Calling.

- When the Wi-Fi Calling feature is on, your phone displays the Wi-Fi Calling icon on the Status Bar.

- To stay on a Wi-Fi call, you must remain within range of the Wi-Fi network. Your call will drop as you leave the Wi-Fi range. When your Wi-Fi signal weakens, your phone will beep and display a warning message alerting you that your call will drop if the signal gets weaker.

Wi-Fi Calling offers three connection options:

- Wi-Fi Preferred: All calls are made over an available Wi-Fi network. If there are no available Wi-Fi networks calls are made over the cellular network.

- Cellular Network Preferred: All calls are made over the cellular network unless the cellular network is not available, then calls are made over an available Wi-Fi network.

- Never use Cellular Network: All calls are made over an available Wi-Fi network. If there are no available Wi-Fi networks, your calls will not connect.

Call duration – View the duration of calls including Last call, All calls, Dialed calls and Received calls.

Additional settings - Allows you to change the following settings:

- Caller ID: Choose whether to display your number in an outgoing call.
- 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).

VPN – Displays the list of Virtual Private Networks (VPNs) that you've previously configured. Allows you to add different types of VPNs.

 NOTE
 You must set a lock screen PIN or password before you can use credential storage.

 Mobile networks – Set options for data roaming, network mode & operators, access point names (APNs) etc.

# DEVICE

## < Sound >

Sound profile - Choose Sound, Vibrate only or Silent.

Volumes - Manage the volume of Phone ringtone, Notification sound,

Touch feedback & system, Music, video, games and other media.

Quiet time - Set times to turn off all sounds except alarm and media.

Ringtone with vibration – Vibration feedback for calls and notifications.

Phone ringtone – Allows you to set your default incoming call ringtone.

Notification sound - Allows you to set your default notification ringtone.

**Dial pad touch tones** – Allows you to set the phone to play tones when using the dialpad to dial numbers.

Touch sounds – Allows you to set your phone to play a sound when you touch buttons, icons and other onscreen items that react to your touch.

Screen lock sound – Allows you to set your phone to play a sound when locking and unlocking the screen.

Vibrate on touch – Allows you to set the vibration feedback when the phone screen is touched.

< Display >

Brightness - Adjust the screen brightness.

Screen timeout - Set the time for screen timeout.

Auto-rotate screen – Set to switch orientation automatically when you rotate the phone.

Font type - Change the type of display font.

Font size - Change the size of the display font.

Front key light – Set the front key light duration.

Aspect ratio correction – Change the resolution size of downloaded applications to fit the screen size.

< Home screen >

Theme - Sets the screen theme for your device.

Animation - Sets the device to use the available animations.

Screen swipe effect - Sets the effect when you swipe to change screens.

Wallpaper - Sets the wallpaper to use on your Home screen.

Portrait view only - Checkmark to always display the Home screen in portrait view.

Scroll screens circularly - Checkmark to set the Home screens to scroll continuously, eliminating the need to scroll back in the opposite direction when you reach one end.

Home backup & restore - Allows you to backup and restore app and widget configurations and themes.

< Lock screen >

Select screen lock – Set a screen lock type to secure your phone. Choose from None, Swipe, Face Unlock, Pattern, PIN or Password.

**Wallpaper** – Select the wallpaper for your lock screen from Gallery or Wallpaper gallery.

Clocks & shortcuts - Customize clocks and shortcuts on the lock screen.

Screen effect - Select the screen effect.

Owner info - Show owner info on the lock screen.

Lock timer - Set the lock time after screen timeout.

**Power button instantly locks** – Set the screen lock when the power button is pressed.

Vibrate on touch – Allows you to set the vibration feedback for phone screen touch.

< Storage >

**INTERNAL STORAGE** - Displays the total amount of space in the phone's memory and lists what type of data is using up space.

SD CARD - Displays the total amount of memory space on the microSD card.

Mount/Unmount SD card - Mounts and unmounts the microSD card from your phone so that you can access the data stored in it, format the card, or safely remove it. This setting is dimmed if there's no microSD card installed, if you've already unmounted it, or if you've mounted the microSD card on your computer.

Erase SD card - Permanently erases everything on the microSD card and prepares it for use with your phone.

#### < Power saver >

Manage the battery use and select the features you want to turn off or change when the battery is low. You can also check the battery use.

## < Apps >

Use the Apps menu to view details about the applications installed on your phone, manage their data, and force them to stop.

## PERSONAL

#### < Accounts & sync >

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

#### < Location access >

Access to my location – Lets apps that have asked your permission use your location information.

GPS satellites – Lets apps use GPS satellites to determine your location to street-level accuracy.

Wi-Fi & mobile network location – Let apps use Google's location service to estimate your location faster. Anonymous location data will be collected and sent to Google.

#### < Security >

Set up SIM card lock – Set up Micro SIM card lock or change the Micro SIM PIN.

**Password typing visible** – Show the last character of the hidden password as you type.

## 70 Settings

Phone administrators - View or deactivate phone administrators.

Unknown sources - Allows you to install non-Play Store applications.

Trusted credentials - Display trusted CA certificates.

Install from storage - Choose to install encrypted certificates.

Clear credentials - Remove all certificates.

## < Language & input >

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

## < Backup & reset >

Backup my data – Set to backup your settings and application data to the Google server.

Backup account – Set the account to which you want to backup data to.

Automatic restore – Set to restore your settings and application data when the applications are reinstalled on your device.

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 reenter the same information as when you first started Android.

# SYSTEM

< Date & time >

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

## < Accessibility >

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

NOTE Requires additional plug-ins to become selectable.

# SERVICES

• TalkBack: Allows you to set up the TalkBack function which assists people with impaired vision by providing verbal feedback. Tap the TalkBack switch at the top right corner of the screen to turn it on. Tap SETTINGS at the bottom of the screen to adjust the TalkBack settings.

## VISION

- Install web scripts: Allows you to enable (or disable) installation of web scripts.
- Large text: Checkmark to increase the size of the text.
- Invert color: Checkmark to invert color.
- Shades: Set the screen to be shade of black.

## HEARING

- Vibrate type: Set vibrate type for calls, notifications and touch feedbacks.
- Mono audio: Checkmark to allow headset sound routed both right and left channel.

## PHYSICAL AND MOTOR

- Touch & hold delay: Sets the touch and hold delay (short, medium, or long).
- Universal touch: Tap reprint to toggle between on and off. Assistive touch can replace all hardware buttons.

# SYSTEM

- Auto-rotate screen: Checkmark to allow the device to rotate the screen depnding on the device orientation (portrait or landscape).
- Speak passwords: Checkmark so that you can say your log in passwords (instead of typing your passwords).
- Power button ends call: Checkmark so that you can end voice calls by pressing the Power/Lock Key . When this option is enabled, pressing the Power/Lock Key during a call does not lock the screen.

- Easy access: Allows you to select easy access.
- Text-to-speech output: Text-to-speech output provides audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.

#### < PC connection >

USB connection type – Set the desired mode you want to use by default when connecting to a PC. Choose from Charge only, Media sync (MTP), LG software or Camera (PTP).

Ask on connection – Ask in USB connection mode when connecting to a computer.

Help – Displays connection settings information.

#### < Developer options >

Keep in mind that turning on these developer settings may result in irregular device behavior. The developer options are recommended only for advanced users.

Take bug report - This will collect information about your current device state, to send as an email message.

Desktop backup password - Sets a password to back up the desktop.

Stay awake - Checkmark to set the screen to never timeout while charging.

Protect SD card - Checkmark to protect the microSD card. When the microSD card is protected, applications must request permission to read data from external storage.

#### DEBUGGING

USB debugging - Checkmark to turn on debug mode when USB is connected.

Allow mock locations - Checkmark to set the device to a mock location.

Select debug app - Allows you to select the debugging application.

Wait for debugger - Checkmark to wait for debugger. Debugged application waits for debugger to attach before executing.

#### INPUT

Show touches - Checkmark to show visual feedback when the screen is tapped.

Show touch data - Checkmark to make touch data visible on the screen.

#### DRAWING

Show layout bounds - Checkmark to show clip bounds, margins, etc.

Show GPU view updates - Checkmark to flash views inside windows when drawn with the GPU.

Show screen updates - Checkmark to flash areas of the screen when they are updated.

Window animation scale - Allows you to set the window animation scale.

Transition animation scale - Allows you to set the transition animation scale.

Animator duration scale - Allows you to set the animator duration scale.

Disable HW overlays - Checkmark to use the GPU for screen compositing.

Force GPU rendering - Checkmark to use the 2D hardware acceleration in applications.

#### MONITORING

Enable strict mode - Checkmark to flash the screen when applications operate for a long period of time on the main thread.

Show CPU usage - Checkmark to overlay the current CPU usage on the screen.

Profile GPU rendering - Checkmark to measure rendering time in adb shell dumpsys gfxinfo.

Enable traces - Allows you to select enabled traces.

#### APPS

**Don't keep activities** - Checkmark to force stop every activity as soon as the user leaves it.

#### 74 Settings

Background process limit - Allows you to set the background process limit.

Show all ANRs - Checkmark to show a dialog box when applications running in the background are not responding.

#### < About phone >

View legal information and check your phone status and software version.

System updates - Allows you to check for Android system software updates and other current information.

Network - Allows you to view your network, network type and strength, service state, roaming status, mobile network state, and IP address.

Phone identity - Allows you to view the model number, phone number, IMEI, IMEI SV, ICCID, and Up time.

Battery - Allows you to view battery status, battery level, and battery use information.

Hardware information - Allows you to view Wi-Fi MAC address, Bluetooth address, and hardware version.

Software information - Allows you to view Android version, baseband version, kernel version, build number, and software version.

Legal information - Allows you to view open source licenses and Google legal information.

Patent information - Displays LG patent information.

#### 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

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 data cable. This feature is only available if and when LG makes the newer version of the firmware available for your device.

First, you can check the software version on your mobile phone: From the Home screen, tap the Menu Key > System settings > About phone > Software information.

To perform the phone software update, from the Home screen, tap the Menu Key  $\equiv$  > System settings > About phone > System updates > Check now.

NOTE

LG reserves the right to make firmware updates available only for selected models at its own discretion and does not guarantee the availability of the newer version of the firmware for all handset models.

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.

#### 76 Accessories

These accessories are available for use with your phone. (Items described below may be optional and sold separately.)



#### NOTE

Always use genuine LG accessories. Failure to do this may void your warranty.
Accessories may vary in different regions.

#### **AmbientTemperatures**

Max: +55°C (discharging), +45°C (charging)

Min: -10°C

#### Battery Standby and Talk Time

Standby and talk times will vary depending on phone usage patterns and conditions. Battery power consumption depends on factors such as network configuration, signal strength, operating temperature, features selected, frequency of calls, and voice, data, and other application usage patterns.

## **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.

## Phone Operation

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

### **Tips on Efficient Operation**

For your phone to operate most efficiently:

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

## 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.

## **Electronic Devices**

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

#### Pacemakers

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

#### Persons with pacemakers:

- Should ALWAYS keep the phone more than six (6) inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference;
- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

## Hearing Aids

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

### Other Medical Devices

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

#### Health Care Facilities

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

#### Vehicles

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

#### Posted Facilities

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

## Aircraft

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

## Blasting Areas

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

## Potentially Explosive Atmosphere

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

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

## For Vehicles Equipped with an Air Bag

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

## Safety Information

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

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

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified 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.
- Improper battery use may result in a fire, explosion or other hazard.
- For those host devices that utilize a USB port as a charging source, check the host device's user manual for the USB-IF logo or some other means to ensure that it has completed the USB-IF compliance program.

## 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 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 dispose of your battery properly or take it to your local wireless carrier for recycling.
- The battery doesn't need to be empty before recharging.
- Use only LG-approved chargers specific to your phone model since they are designed to maximize battery life.
- Do not disassemble or short-circuit the battery.
- Keep the battery's metal contacts clean.
- Replace the battery when it no longer provides acceptable performance. The battery can be recharged several hundred times before replacement.
- Recharge the battery after long periods of non-use to maximize battery life.
- Battery life will vary due to usage patterns and environmental conditions.
- Use of extended backlighting, Browser, and data connectivity kits affect battery life and talk/ standby times.
- The self-protection function of the battery cuts the power of the phone when its operation is in an abnormal state. In this case, remove the battery from the phone, reinstall it, and turn the phone on.

## 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. 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 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 may cause serious injury.
- 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. If this happens, turn it off immediately and remove the battery. If the phone does not work, 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, photos, 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.
- Do not use your device for long periods of time while a part of your body is making direct contact with it. The temperature of the product may increase during normal operation and this may result in harming or burning your skin.

#### 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<sup>®</sup> or other wireless devices). Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

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

- Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noisecancelling headphones to block out background environmental noise.
- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as 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.

You can obtain additional information on this subject from the following sources:

### American Academy of Audiology

11730 Plaza American Drive, Suite 300

Reston, VA 20190

Voice: (800) 222-2336

Email: info@audiology.org

Internet: www.audiology.org

## National Institute on Deafness and Other Communication Disorders

National Institutes of Health

31 Center Drive, MSC 2320

Bethesda, MD USA 20892-2320

Voice: (301) 496-7243

Email: nidcdinfo@nih.gov

Internet: http://www.nidcd.nih.gov/health/hearing

#### National Institute for Occupational Safety and Health

Hubert H. Humphrey Bldg. 200 Independence Ave., SW Washington, DC 20201 Voice: 1-800-35-NIOSH (1-800-356-4674) Internet: http://www.cdc.gov/niosh/topics/noise/default.html

#### 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 does not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

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

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

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

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

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

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

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

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

The term "wireless phone" refers here to handheld wireless phones with built-in antennas, often called "cell", "mobile", or "PCS" phones. These types of wireless phones can expose the user to measurable Radio Frequency (RF) energy because of the short distance between the phone and the user's head. These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

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

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

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

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

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

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

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

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

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

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit Radio Frequency (RF) energy exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless phones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/ cgb/cellular.html) 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), under "C" in the subject index, select Cell Phones > Research.

Federal Communications Commission (FCC) RF Safety Program (http:// www.fcc.gov/oet/rfsafety/) International Commission on Nonlonizing Radiation Protection (http://www.icnirp.de)

World Health Organization (WHO) International EMF Project (http://www. who.int/emf)

Health Protection Agency (http://www.hpa.org.uk/)

### 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:

- 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.

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

#### (Specific Absorption Rate)

This model phone meets the Government's requirements for exposure to radio waves. Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Counsel on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy.

The exposure limit for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements.

Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model.

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

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines.

The highest SAR value for this model phone when tested for use at the ear is 0.70 W/kg and when worn on the body, as described in this user's manual, is 1.25 W/kg. While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/ea/fccid/ after searching on FCC ID ZNFP769.

To find information that pertains to a particular model phone, this site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone.

Additional information on Specific Absorption Rates (SAR) can be found

on the Cellular Telecommunications Industry Association (CTIA) website at http://www.ctia.org/

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

# 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 example to the left, 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.

When you're talking on a cell phone, it's recommended that you turn the BT (Bluetooth) or WLAN mode off for HAC.

For information about hearing aids and digital wireless phones

Wireless Phones and Hearing Aid Accessibility

http://www.accesswireless.org/Home.aspx

FCC Hearing Aid Compatibility and Volume Control

http://www.fcc.gov/cgb/consumerfacts/hac\_wireless.html

## DivX Mobile DIVX.

ABOUT DIVX VIDEO: DivX<sup>®</sup> is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified<sup>®</sup> device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX videos.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified<sup>®</sup> device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx. com for more information on how to complete your registration.

DivX Certified  $^{\otimes}$  to play DivX  $^{\otimes}$  video up to HD 720p, including premium content.

 ${\rm Div}X^{\circledast},\,{\rm Div}X$  Certified^ ${\circledast}$  and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license.

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

Category	Sub-Category	Question	Answer
Bluetooth	Bluetooth Devices	What are the functions available via Bluetooth?	Connecting to Stereo/Mono Headset, Car Kit, FTP server is possible. When it's connected to another phone via Bluetooth, you can receive Contacts data.
Bluetooth	Bluetooth Headset	If my Bluetooth headset is connected, can I listen to my music through my 3.5mm wired headphones?	When a Bluetooth headset is connected, all system sounds are played over the headset. As a result, you will not be able to listen to music through your wired headphones.
Data	Contacts Backup	How can I back up Contacts?	The Contacts data can be synchronized between your phone and Gmail <sup>TM</sup> .
Data	Synchronization	ls it possible to set up one-way-sync with Gmail?	Only two-way synchronization is available.
Data	Synchronization	ls it possible to synchronize all the Email folders?	The Inbox is automatically synchronized. You can view other folders by touching the Menu Key and selecting Folders.
Data	Synchronization	Is it possible to transfer Contacts data from a feature phone to an Android™ phone?	Yes, if your contacts can be extracted into a .CSV file. How to transfer: 1. Create "CSV" file with the contacts on your current phone (you may be able to use the PC suite software provided by LGE). 2. Log into Gmail with your PC. 3. Click Contacts. 4. Click Import. 5. Attach the "CSV" file. 6. Your contacts will then be synchronized between your Android™ phone and Gmail.

Category	Sub-Category	Question	Answer
Google Service	Gmail Log-In	Should I have to log into Gmail whenever I want to access Gmail?	Once you log into Gmail, you don't need to log in Gmail again.
Google Service	Google Account	ls it possible to filter emails?	No, email filtering is not supported via the phone.
Phone Function	YouTube™	ls it possible to play YouTube videos?	Yes, YouTube videos are supported but may have to be viewed through the YouTube application (and not the Browser).
Phone Function	Email	What happens when I execute another application while writing an email?	Your email will automatically be saved as a draft.
Phone Function	Ringtone	Is there a file size limitation for when I want to use a .MP3 file as a ringtone?	There is no file size limitation.
Phone Function	Message Time	My phone does not display the time of receipt for messages older than 24 hours. How can I change this?	Open the message thread, then touch and hold the desired message and select View message details.

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Category	Sub-Category	Question	Answer
Phone Function	microSD Card	What is the maximum supported size for a memory card?	32GB memory cards are compatible.
Phone Function	Navigation	Is it possible to install another navigation application on my phone?	Any application that is available on Play Store and is compatible with the hardware can be installed and used.
Phone Function	Synchronization	Is it possible to synchronize my contacts from all my email accounts?	Only Gmail and MS Exchange server (Company Email Server) contacts can be synchronized.
Phone Function	Wait and Pause	Is it possible to save a contact with Wait and Pause in the numbers?	If you transferred a contact with the Wait and Pause functions saved into the number, you will not be able to use those features. You will need to re-save each number. How to re-save numbers with Wait
			and Pause: 1. From the Home screen, touch the Phone Key . 2. Dial the number, then touch the
			Menu Key . 3. Touch Add 2-sec pause or Add wait.
Phone Function	Security	What are the phone's security functions?	You are able to set the phone to require the entry of an unlock sequence (face unlock, pattern, PIN, or password) before the phone can be accessed or used.
Phone Function	Unlock Pattern	What should I do if I forget my Unlock Pattern?	After attempting the Unlock Pattern 5 times, you can touch the Forgot Pattern? option and use your Google Account information or Backup PIN to unlock your phone.

Category	Sub-Category	Question	Answer
Phone Function	Unlock Pattern	How do I create the Unlock Pattern?	<ol> <li>From the Home screen, touch the Menu Key .</li> <li>Touch Lock screen settings &gt; Select screen lock.</li> <li>Touch Pattern. The first time you do this, a short tutorial about creating an unlock pattern appears.</li> <li>Set up by drawing your pattern once &gt; Continue, draw again &gt; Confirm.</li> </ol>
Phone Function	Speed Dial	Is Speed Dialing supported?	Yes. You can set Speed Dials as well as save a contact directly on your Home screen. To set a Speed Dial: 1. Open the Contacts application. 2. Touch the Menu Key I ≥ Speed dial. 3. Touch the speed dial location and select the desired contact. To set a Direct Dial shortcut to your Home screen: 1. Touch and hold an empty area on your Home screen. 2. Touch Widgets > Direct dial. 3. Select a contact from your Contacts List.
Phone Function	Memory	Will I know when my memory is full?	Yes, you will receive a notification.
Phone Function	Language Support	Is it possible to change the language?	The phone has multi-lingual capabilities. To change the language: 1. From the Home screen, touch the Menu Key ■ > System settings. 2. Touch Language & input > Language. 3. Touch the desired language.

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Category	Sub-Category	Question	Answer
Phone Function	VPN	How do I set up a VPN?	VPN access configuration is different according to each company. To configure VPN access from your phone, you must obtain the details from your company's network administrator.
Phone Function	Screen time out	My screen turns off after only 30 seconds. How can I change the amount of time for the backlight to turn off?	<ol> <li>From the Home screen, touch the Menu Key          <ul> <li>Screen settings &gt; Display &gt; Screen timeout.</li> <li>Touch the preferred screen backlight timeout time.</li> </ul> </li> </ol>
Phone Function	Wi-Fi & 4G	When Wi-Fi and 4G are both available, which service will my phone use?	When using data, your phone may default to the Wi-Fi connection (if Wi-Fi connectivity on your phone is set to On). However, there will be no notification when your phone switches from one to the other. To know which data connection is being used, use the 4G or Wi-Fi icon at the
Phone Function	Home screen	Is it possible to remove an application from the Home screen?	top of your screen. Yes. Just touch and hold the icon until the Remove bar appears at the top of the screen. Then, without lifting your finger, drag the icon to the Remove bar.
Phone Function	Application	I downloaded an application and it causes a lot of errors. How do I remove it?	<ol> <li>From the Home screen, touch the Menu Key .</li> <li>Touch App settings</li> <li>Touch the application &gt; Uninstall &gt; OK.</li> </ol>

Category	Sub-Category	Question	Answer
Phone Function	Ringtones	Can I use music files for my ringtones?	Yes. After saving a music file, you can use it for your ringtone.
			Touch and hold a song in a library list. In the menu that opens, touch <b>Set as</b> <b>ringtone</b> .
Phone Function	Alarm	Will my alarm be audible or will it go off if the phone is turned off?	No, this is not supported.
Phone Function	Alarm	If my Ringer Volume is set to <b>Off</b> or <b>Vibrate</b> , will I hear my alarm?	Your alarm is programmed to be audible even in these scenarios.
Phone Spec	BatteryTime	What is the maximum amount of time my phone's battery will last before I need to recharge it?	Talk time : Approx. 420 min (7 hours max) Standby : Approx. 14 days (336 hours max)
Phone Spec	Band	Which wireless bands are supported by the phone?	Your phone is able to operate on the 850MHz, 1700MHz, 1900MHz and 2100MHz bands.

## 108 FAQ

Category	Sub-Category	Question	Answer
Recovery Solution	Factory Reset	How can I perform a factory reset if I can't access the phone's setting menu?	How to perform a factory reset: 1. Turn the power off. 2. Press and hold the following keys at the same time: Home Key  + Volume Down Key  + Volume Down Key  + Volume Down Key  + Power/ Lock Key  . 3. Release all of the keys when the Android robot animation is displayed. 4. The phone will perform a factory reset and reboot to your Home screen. Attention: If a factory reset is performed, all installed applications and user data will be erased. Please remember to back up any important data before performing a factory reset.
	Battery installing	Phone locked up and does not function	Remove the battery and install it to restart your phone again. (similar to how you may restart your PC/ computer).
	Power Reset		In the case of a malfunction or lock up error, press and hold the Power/Lock Key for 8 seconds to reset the phone.

## 1. WHAT THIS WARRANTY COVERS:

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

- (1) The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.
- (2) The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.
- (3) This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.
- (4) The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.
- (5) Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.
- (6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

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

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

applicable limited warranty period.

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

## 3. WHAT LG WILL DO:

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

## 4. STATE LAW RIGHTS:

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT. Some states do not allow the exclusive limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

## 5. HOW TO GET WARRANTY SERVICE:

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

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

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

Or visit http://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.