



LG

Life's Good

ENGLISH

User Guide

LG L34C

MFL68086501 (1.0)



www.lg.com

Body-worn Operation

This device was tested for typical body-worn operations with the back of the phone kept 0.59 inches (1.5cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.59 inches (1.5cm) must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters and similar accessories containing metallic components may not be used. Body-worn accessories that cannot maintain 0.59 inch (1.5cm) 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.

FCC 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 may cause undesired operation.

FCC 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.

FCC 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.



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User Guide

- Screen displays and illustrations may differ from those you see on actual phone.
- Some of the contents of this guide may not apply to your phone, depending on the software and your service provider. All information in this document is subject to change without notice.
- This handset is not suitable for people who have a visual impairment due to the touch screen keyboard.
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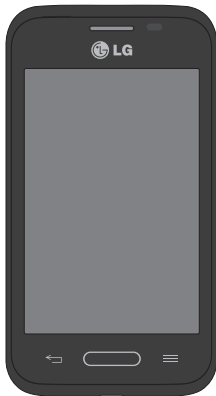


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Important notice



Please read this before you start using your phone!

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

1. Phone memory

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

To uninstall applications:

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

2. Optimizing battery life

Extend your battery's life between charges by turning off features that you don't need to have running constantly in the background. You can monitor how applications and system resources consume battery power.



Extending your phone's battery life:

- Turn off radio communications when you're not using. If you are not using Wi-Fi, Bluetooth or GPS, turn them off.

Important notice



- Reduce screen brightness and set a shorter screen timeout.
- Turn off automatic syncing for Gmail, Calendar, Contacts and other applications.
- Some applications you have downloaded may reduce battery power.

To check the battery power level:

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

The battery status (charging or discharging) and battery level (percentage charged) is displayed at the top of the screen.

To monitor and control how battery power is being used:

- From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **About phone** > **Battery** > **Battery use**.

Battery usage time is displayed on the screen. It tells you how long it has been since you last connected your phone to a power source or, if currently connected, how long the phone was last running on battery power. The screen shows the applications or services using battery power, listed in order from the greatest to smallest amount used.

3. Before installing an open source application and operating system (OS)



WARNING

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

WARNING

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

4. Using a screen lock

Set an unlock pattern to secure your and prevent unauthorized use. From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **Lock screen** > **Select screen lock** > **Pattern**. This opens a screen that will guide you through how to draw a screen lock pattern. You will be prompted to create a Backup PIN as a safety measure in case you forget your screen lock.

Caution: Create a Google account before setting a screen lock and remember the Backup PIN you created when creating your screen lock.

Important notice

WARNING

Precautions to take when using a pattern lock.

It is very important to remember the pattern lock you set. You will not be able to access your phone if you use an incorrect pattern 5 times. You have 5 opportunities to enter your pattern lock, PIN or password. If you have used all 5 opportunities, you can try again after 30 seconds.

When you can't recall your unlock Pattern, PIN or Password:

< If you have forgotten your pattern >

If you logged in to your Google account on the phone but failed to enter the correct pattern 5 times, tap the **Forgot pattern?** button at the bottom of the screen. You are then required to log in with your Google Account or enter the Backup PIN you created.

If you have not logged into a Google account on the phone or you forgot your Backup PIN, you have to perform a hard reset.

< If you have forgotten your PIN or Password >





If you forget your PIN or Password, you will need to perform a hard reset.

Caution: If you perform a hard reset, all user applications and user data will be deleted.

NOTE: If you have not logged into your Google Account and have forgotten your Unlock Pattern, you will need to enter your Backup PIN.

5. Using the Hard Reset (Factory reset)

If your phone does not restore to its original condition after an error or you forgot your screen lock, use a Hard Reset (Factory Reset) to initialize it.

- 1 Turn the power off.
- 2 Press and hold the **Power/Lock Key**  + **Volume Down Key** .
- 3 Release the **Power/Lock Key** when LG logo display.
- 4 Press the **Power/Lock Key**  again within 3 seconds.
- 5 When the Factory data reset screen appear, release all keys.
- 6 Select Yes or No with the **Volume Up/Down Key**  if you make the default settings or not.
- 7 If you choose Yes, Confirm it once more.
- 8 Your phone will perform a factory reset.



WARNING

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



6. Opening and switching applications

Multi-tasking is easy with Android because you can keep more than one application running at the same time. There is no need to quit an application before opening another one. Use and switch between several open applications. Android manages

Important notice

each application, stopping and starting them as needed to ensure that idle applications don't consume resources unnecessarily.

To stop applications:

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **Apps** > **RUNNING**.
- 2 Tap the desired application and tap **Stop** to stop it.

7. Transferring music, photos and videos using Media sync (MTP)

- 1 Connect the phone to your PC using the USB cable provided with your phone.
- 2 A USB connection type list will appear on your phone screen. Tap the **Media sync (MTP)** option.
- 3 Select the **Open device to view files** option on your PC. You can then view media contents on your PC and transfer the files.
- 4 Copy the files from your PC to the drive folder or vice versa.
- 5 Drag the Status Bar down and tap **USB connected** > **Charge only**.
- 6 Disconnect the USB cable from your phone.

8. Hold your phone upright

Hold your cell phone vertically, as you would a regular phone. Your phone has an internal antenna. Be careful not to scratch or damage the back of the phone, as this may affect performance.

When making/receiving calls or sending/receiving data, avoid holding the lower part of the phone where the antenna is located. Doing so may affect call quality.

9. When the screen freezes

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

Press and hold the **Power/Lock Key**  for 10 seconds to turn your phone off.

If it still does not work, please contact the service center.

Getting to know your phone

Phone overview

Earpiece

Proximity Sensor

Volume Keys

Allow you to adjust the ringer, media volume, or the volume during a call.

Home Key

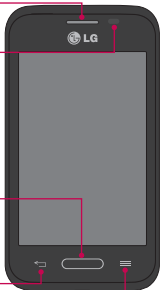
Return to the Home screen from any screen.

Back Key

Return to the previous screen.

Menu Key

Display the available options.



Power/Lock Key

Turn your phone on/off, restart, lock/unlock the screen, turn airplane mode on or off, and change the ringer type.

NOTE: Proximity sensor

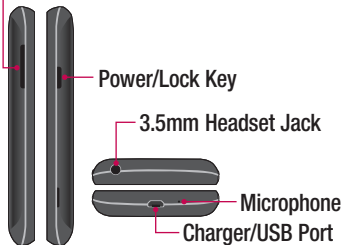
When receiving and making calls, the proximity sensor automatically turns the backlight off and locks the touch screen by sensing when the phone is near your ear. This extends battery life and prevents you from unintentionally activating the touch screen during calls.

⚠ WARNING

Placing a heavy object on the phone or sitting on it can damage the LCD and touch screen functions. Do not cover the LCD proximity sensor with protective film. This could cause the sensor to malfunction.

Volume Keys

- **On the Home screen:** Control ringer volume.
- **During a call:** Control your earpiece volume.
- **When playing audio/video:** Control volume continuously.



NOTE: Please be careful not to block the microphone by your hand when you call.

Getting to know your phone



Installing the battery

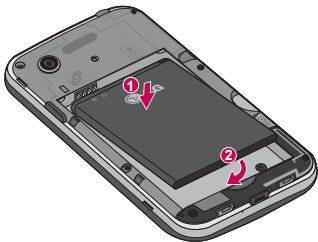
Before you can start exploring your new phone, you'll need to set it up.

- 1 To remove the back cover, hold the phone firmly in one hand. With your other hand, lift off the back cover with your thumbnail as shown in figure below.



Getting to know your phone

- 2 Insert the battery into place by aligning the gold contacts on the phone and the battery (1) and pressing it down until it clicks into place (2).

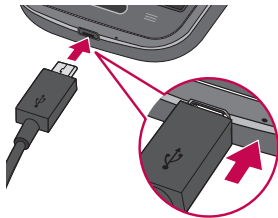


- 3 Align the back cover over the battery compartment (1) and press it down until it clicks into place (2).



Charging the phone

The Charger/USB Port is at the bottom of the phone. Insert one end of the charging cable into the phone and plug the other end into an electrical outlet.



NOTE:

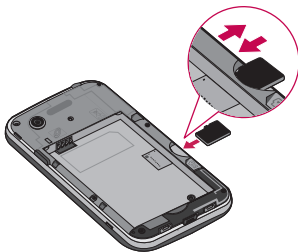
- The battery must be fully charged initially to improve battery lifetime.
- Do not open the back cover while your phone is charging.

Getting to know your phone

Using the memory card

Make sure to unmount the SD card in the Storage menu before removing it.

- 1 Remove the back cover.
- 2 Insert the memory card into the slot. Make sure the gold contact area is facing downwards.



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 taps and saves battery power.

When you are not using 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 the screen. The last screen you viewed will open.

Your Home screen

Touch screen tips

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

Touch or tap – 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 when viewing a picture 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, Maps or when viewing 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, tap the center of the icon.
- Do not press too hard; the touch screen is sensitive enough to pick up a light, yet firm tap.
- Use the tip of your finger to tap the option you want. Be careful not to tap any other keys.

Home screen

Simply swipe your finger to the left or right to view the Home screen panels. You can customize each panel with pre-loaded and downloaded apps, widgets, and wallpapers.

The Quick Keys are available at the bottom of the Home screen. Quick Keys provide easy and one-tap access to the functions you use the most.

-  Tap the **Phone** icon to bring up the touch screen dialpad to make a call.
-  Tap the **Contacts** icon to open your contacts.
-  Tap the **Messaging** icon to access the messaging menu. This is where you can create a new message.
-  Tap the **Apps** icon at the bottom of the screen. This displays all of your installed applications. To open any application, simply tap the icon in the applications list.

NOTE: To add an icon, drag it to the Quick Keys bar and release it. To remove an icon, drag it out of the Quick Keys bar.

Your Home screen

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 desired tab. Choose from **Apps**, **Widget**, or **Wallpapers**.
- 3 Drag the desired app icon to the preferred location and lift your finger.

To remove an item from the Home screen:

- Touch and hold the icon you want to remove, then drag it to  and release it.

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

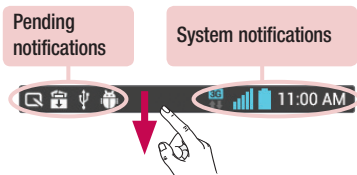
You can combine several app icons in a folder to help keep you organized. Drop one app icon over another one on a Home screen and a folder will be created with both icons in it.

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, such as Wi-Fi or battery strength, on the right.



Accessing notifications




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

Quick Settings

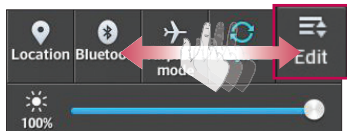
Use Quick Settings to easily toggle function settings like Wi-Fi, manage display brightness and more. To access the Quick Settings, open the Notifications Panel. The Quick Settings bar is located at the top of the Notifications Panel.

Your Home screen

To rearrange Quick Setting items on the Notification Panel

Swipe the Quick Settings bar to the right and tap . Touch and hold  next to the items you want to move and drag it to the desired location. Tap  to add more items to the Quick Settings bar.

NOTE: Touch and hold an icon on the Quick Settings bar to directly access its settings menu.



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 listed in the table below are some of the most common ones.

Icon	Description	Icon	Description
	No signal		Battery fully charged
	Airplane mode		Battery is charging
	Connected to a Wi-Fi network		Downloading data
	Wired headset		Uploading data
	Call in progress		GPS is acquiring
	Speakerphone		Receiving location data from GPS
	Missed call		Data is syncing
	Bluetooth is on		New Gmail message

Your Home screen

Icon	Description
	System warning
	Alarm is set
	New voicemail
	Ringer is silenced
	Battery saver is on

Icon	Description
	New Hangouts message
	New text or multimedia message
	Song is playing
	Phone is connected to PC via USB cable

NOTE: The icon locations in the Status Bar may differ depending on the functions, features, and apps being used.



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 tap 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 this key to enter text using your voice. Touch and hold this key and tap your finger over  and release it to access the LG Keyboard settings. This key changes depending on which option was used last.

 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 LG Keyboard allows you to enter special characters (e.g. “á”) when entering text. For example, to enter “á”, touch and hold the “a” key until the additional characters are displayed. Then select the special character you want to enter.

NOTE: A symbol at the top left corner of a key indicates that additional characters are available for that key.


Google account setup

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

Creating your Google account

- 1 From the Home screen, tap  to open the applications screen.
- 2 Tap **Settings**  > **Accounts & sync** > **ADD ACCOUNT** > **Google** > **New** to start the Gmail set up wizard.
- 3 Tap a text field to open the keyboard and enter your name and username for your Google account. When entering text, you can move to the next text field by tapping **Next** on the keyboard.
- 4 When you have finished entering your name and username, tap . Your phone then communicates with Google servers and checks for username availability.
- 5 Enter and re-enter your password. Then follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

Signing in to your Google account

- 1 On the Google Account setup screen, tap **Existing**, enter your e-mail address and password, then tap .
- 2 After signing in, you can use Gmail and take advantages of Google
- 3 Once you have set up your Google account on your phone, it will be automatically synchronized with your Google account on the web (depending on your synchronization settings).

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

Connecting to Networks and Devices

Wi-Fi

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 service provider for mobile data use.

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

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **Wi-Fi**.
- 2 Tap the switch  to turn Wi-Fi on and start scanning for available Wi-Fi networks.
 - Secured networks are indicated by a lock icon.
- 3 Tap 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)
- 4 The Status Bar displays icons that indicate Wi-Fi status.

Bluetooth




Bluetooth allows you to share data with other Bluetooth-enabled devices and connect to Bluetooth headsets.

NOTE:

- 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 phone with another device before you connect to it.

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **Bluetooth**.
- 2 Tap the switch  to turn Bluetooth on.
- 3 Tap the check box next to your phone's name to make your phone visible to other Bluetooth devices.
- 4 A list of available devices will be displayed. Choose the device you want to pair with from the list.

Connecting to Networks and Devices

Once the pairing is successful, your device will connect to the other 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


- 1 Select a file or item, such as a contact, calendar event or media file, from an appropriate application or from the **Downloads**  app.
- 2 Select the option for sending data 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

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Settings**  > **Bluetooth**.
- 2 Tap the switch  to turn Bluetooth on.
- 3 Tap the check box next to your phone's name to make your phone visible to other Bluetooth devices.


NOTE: To select the length of time that your device will be visible, tap the **Menu Key**  > **Visibility timeout**.

- 4 Tap **Accept** to confirm that you are willing to receive data from the device.

Connecting to Virtual Private Networks

Virtual private networks (VPNs) allows you to connect to resources inside a secure local network, from outside that network.

To add a VPN

- 1 From the Home screen, tap the **Menu Key**  > **System settings** > **More...** > **VPN**.
- 2 Tap **Add VPN network**.
- 3 Tap the type of VPN you want to add.
- 4 In the screen that opens, follow the instructions from your network administrator to configure each component of the VPN settings.
- 5 Tap **Save**. The VPN will be added to the list on the VPN settings screen.

PC connections with a USB cable

Learn to connect your device to a PC with a USB cable using the different USB connection modes.

Transferring music, photos and videos using Media sync (MTP)

- 1 Connect your phone to a PC using the USB cable provided with your phone.
- 2 A USB connection type list will appear on your phone screen. You can also go to **System settings** > **PC connection** > **Select USB connection method** > **Media sync (MTP)**.
- 3 You can now view media contents on your PC and transfer the files.

Synchronize with Windows Media Player

Ensure that Windows Media Player is installed on your PC.

Connecting to Networks and Devices





- 1 Use the USB cable to connect the phone to a PC on which Windows Media Player has been installed.
 - 2 Select the **Media sync (MTP)** option. When connected, a pop-up window will appear on the PC.
 - 3 Open Windows Media Player to synchronize music files.
 - 4 Edit or enter your device's name in the pop-up window (if necessary).
 - 5 Select and drag the music files you want to the sync list.
 - 6 Start synchronization.
- The following requirements must be satisfied to synchronize with Windows Media Player.



Items	Requirement
OS	Microsoft Windows XP SP2, Vista or higher
Window Media Player version	Windows Media Player 10 or higher

- If the Windows Media Player version is lower than 10, install version 10 or higher.



Calls

Making a call

- 1 From the Home screen, tap  to open the dial pad.
- 2 Enter the number using the dial pad. To delete a digit, tap .
- 3 Tap  to make a call.
- 4 To end a call, tap .



TIP! To enter “+” to make international calls, touch and hold  .

Calling your contacts

- 1 From the Home screen, tap  to open your contact list.
- 2 Scroll through the contact list or tap the **Search contacts** box and enter the contacts name. You can also scroll the alphabet bar along the right side of the screen.
- 3 In the list, tap  next to the desired contact to make the call.

Answering and rejecting a call

When the screen is locked

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

When the screen is unlocked

- Tap  to answer the incoming call.

Calls

- Tap  to decline the incoming call.







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 Up and Volume Down Keys on the left-hand side of the phone.

Making a second call

- 1 During your first call, tap **Menu Key** , touch **Add call** and dial the number. You can also go to the recently dialed numbers list by tapping  or search contacts by tapping  and selecting the contact you want to call.
- 2 Tap  to make the call.
- 3 Your initial call is placed on hold.
- 4 Tap  if you want to start a conference call.
- 5 To end active calls, tap .

NOTE: You are charged for each call you make.

Viewing your call logs



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

TIP!

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

Call settings


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

- 1 From the Home screen, tap .
- 2 Tap the **Menu Key** .
- 3 Tap **Call settings** and choose the options that you wish to adjust.





Contacts

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

Searching for a contact

- 1 From the Home screen, tap  to open your contact list.
- 2 Tap the **Search contacts** box and enter the contacts name. You can also scroll the alphabet bar along the right side of the screen.

Adding a new contact

- 1 From the Home screen, tap  and enter the new contact's number.
- 2 Tap the **Menu Key**  > **Add to Contacts** > **New contact**.
- 3 If you want to add a picture to the new contact, tap . Choose from **Take photo** or **Select from Gallery**.
- 4 Tap  at the top of the screen and select the account you want to save the contact to.
- 5 Tap a category of contact information and enter the details about your contact.
- 6 Tap **Save**.

Favorite contacts



You can classify frequently called contacts as favorites.

Adding a contact to your favorites



- 1 From the Home screen, tap  to open your contact list.
- 2 Tap a contact to view its details.

- 3 Tap the star to the right of the contact's name. The star will turn yellow color.

Removing a contact from your favorites list

- 1 From the Home screen, tap  to open your contact list.
- 2 Tap the  tab and choose a contact to view its details.
- 3 Tap the yellow color star to the right of the contact's name. The star turns grey color and the contact is removed from your favorites.

Creating a group



- 1 From the Home screen, tap  to open your contact list.
- 2 Tap the **Groups** tab, then tap the **Menu Key**  > **New group**.
- 3 Enter a name for the new group. You can also set a ringtone for the newly created group.
- 4 Tap **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.


Messaging


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

Sending a message

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

NOTE: You will be charged for a text message for every person you send the message to.

- 3 Tap the text field and begin composing your message.
- 4 Tap the **Menu Key**  to open the Options menu. Choose from **View contact**-when the recipient is saved your phone/ **Add to Contacts**-when the recipient isn't saved your phone, **Insert smiley**, **Add subject**, **Discard** and **Priority**.

TIP! You can tap the  icon to attach a file you want to share.

NOTE: It doesn't work normally if the default SMS app is not LG message app. All functions of the message (save, delete, update and other) will be limited.

- 5 Tap **Send** (or **Send MMS**) to send your message.

WARNING

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

View mode

Unread messages are located at the top. Other messages exchanged with another party are displayed in chronological order so that you can conveniently see an overview of your conversation.

Changing your message settings

Your phone message settings are pre-defined, so you can send messages immediately. You can change the settings according to your preferences.

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

E-mail

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 set-up, the Email application 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**  > **Accounts** > **Menu Key**  > **Entire settings**. Then tap the account that you want to configure.

To delete an email account:

- Open the **Email** application and tap the **Menu Key**  > **Accounts** > **Menu Key**  > **Remove account** > tap an account > **Remove** > **Yes**.




Working with account folders

Open the **Email** application and tap the **Menu Key**  > **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 .
- 2 Enter an address for the message's intended recipient. As you enter text, matching addresses will be proposed from your Contacts. Separate multiple addresses using semicolons.
- 3 Tap the **Cc/Bcc** field to copy recipients. Tap  to attach files, if needed.
- 4 Tap the message field and enter your message.
- 5 Tap  to send the email.

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 (depending on your sound and vibration settings).

Camera

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

Getting to know the viewfinder













- 1 Settings** – Tap to open the Settings menu.
- 2 Video mode** – Tap to switch to video mode.
- 3 Capture** – Takes a photo.
- 4 Gallery** – Tap to view the last photo you captured. This enables you to access your Gallery and view saved photos within camera mode.

NOTE: The memory capacity may differ depending on the configured camera settings.

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** .

	This enables you to take a picture by saying a voice command. Say Cheese, Smile, Whiskey, Kimchi or LG to take a photo.
	This defines and controls the amount of sunlight entering the image.
	You can choose the image size.
	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.
	Improves white balance in various lighting conditions.
	Applies color effects to your pictures.
	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.
	Selects a shutter sound.
	Select the volume key control. Capture or Zoom .

Camera



Select the location where you want to save your images.



Tap this whenever you want to know how a function works. This icon will provide you with a quick help guide.




Restore all camera settings back to default.

TIP!

- 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 Tap  to capture the photo.

Once you've taken a photo

Tap the image preview at the bottom to view the last photo you captured.



Tap to take another photo immediately.



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



Tap to delete the photo.

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

NOTE: Additional charges may apply when multimedia messages are downloaded while roaming.

Tap the **Menu Key**  to open the following advanced options.

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

Move – Tap to move the photo to another album.

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

Rename – Tap to edit the name of the selected photo.

Rotate left/right – Tap to rotate the picture to the left or right.

Crop – Tap to crop your photo.

Edit – Tap to edit the photo.



Adjusts light and shade to your photo.



Applies artistic effects to your photos.

Camera



Improve color quality in various lighting conditions.



Applies additional options to your photos.

Slideshow – Displays a slideshow using all of your photos.

Add location – Add location to your photo.

Details – Displays information about the photo.

Viewing your saved photos

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

- 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).

Video camera

To open the video camera, tap **Camera**  on the Home screen, then tap  to switch to video mode.

Getting to know the viewfinder














- 1 Settings** – Tap to open the settings menu.
- 2 Camera mode** – Tap to switch to camera mode.
- 3 Record** – Starts recording.
- 4 Gallery** – Tap to view the last video you recorded. This enables you to access your Gallery and view your saved videos from within video mode.

NOTE: While recording a video, place two fingers on the screen and pinch to use the Zoom function.




Video camera

Using the advanced settings

Using the viewfinder, tap  to open the advanced options. After selecting the option, tap the **Back Key** .

	Tap to set the size (in pixels) of the video you are recording.
	This defines and controls the amount of sunlight entering the video.
	Improves white balance in various lighting conditions.
	Choose a color effect to use for your video.
	Activate this to use your phone's location-based services for geo-tagging purposes.
	Select the volume key control. Record or Zoom .
	Select the location where you want to save your videos.
	Tap this whenever you want to know how a function works. This icon will provide you with a quick help guide.
	Restore all video camera settings back to default.

Recording a quick video

- 1 Open the **Camera** application and tap the **Video mode** button .
- 2 The video camera viewfinder appears on the screen.
- 3 Hold your phone, point the lens towards the subject you wish to capture in your video.
- 4 Tap  once to start recording.
- 5 A timer showing the length of the video is displayed.
- 6 Tap  to stop recording.

After recording a video

Tap the image preview at the bottom to view the last video you recorded.



Tap to record another video immediately.



Tap to send your video to others or share it via social network services.



Tap to delete the video.

NOTE: Additional charges may apply when multimedia messages are downloaded while roaming.

Video camera

Watching your saved videos

- 1 In the viewfinder, tap the image preview at the bottom.
- 2 Your Gallery will appear on the screen.
- 3 Tap a video to play it automatically.

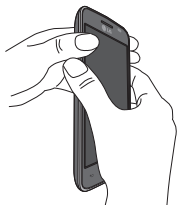
Adjusting the volume when viewing a video

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

LG Unique Function

QuickMemo

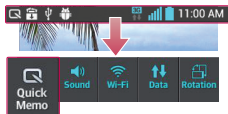
The **QuickMemo** feature allows you to create memos and capture screen shots. You can use QuickMemo to easily and efficiently create memos during a call, with a saved picture or on the current phone screen.



- 1 Access the **QuickMemo** feature by pressing both Volume Keys for one second on the screen you want to capture.

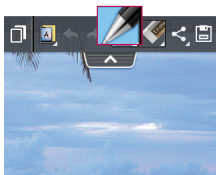
OR

OR

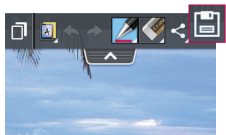


Drag the Status Bar down and tap  on the Quick Settings Bar

LG Unique Function



- 2 Select the desired menu option from **Pen type**, **Color**, and **Eraser**. Then create a memo.







- 3 Tap  in the Edit menu to save the memo to the QuickMemo album in your Gallery.

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

Using the QuickMemo options

The following options are available when using QuickMemo.

	Allows you to use the current background or a notepad image.
	Undo or redo previous actions.
	Selects the pen type and the color.
	Erases the memo that you created.



Tap to send your memo to others or share it via social network services.



Saves the memo in the **Gallery**.

Viewing the saved QuickMemo

Open the **Gallery** and select the **QuickMemo** album.

Multimedia

Gallery

You can store multimedia files in the internal and 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** tab (if necessary) > **Gallery** .

NOTE:

- 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

Open the Gallery to display your available albums. 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. Select 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.
- Spread two fingers apart on any place to zoom in. Pinch to zoom out, or double-tap to return.

Playing videos

Video files show the  icon in the preview. Select a video to watch it and tap .

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.

Editing photos/videos

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

Deleting images

Use one of the following methods:

- In an album, tap  and select photos/videos by tapping them, then tap **Delete**.
- When viewing a photo/video, tap .

Setting a photo as the wallpaper


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

Multimedia

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** tab (if necessary) > **Videos** .
- 2 Select the video you want to play.



Tap to pause video playback.



Tap to resume video playback.



Touch and hold to fast-forward in 3 second increments. Tap once to fast-forward 10 seconds.



Touch and hold to rewind in 3 second increments. Tap once to rewind 10 seconds.



Tap to manage the video volume.



Tap to change the ratio of the video screen.





Tap to lock a video screen.



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










Touch and hold a video in the list. The **Share**, **Delete** and **Details** options will be displayed.

Music

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

Playing a song

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Music** .
- 2 Tap the **Songs** tab.
- 3 Select the song you want to play.

	Tap to find the the song on YouTube.
	Tap to add the song to your Favorites playlist.
	Tap to set shuffle mode.
	Tap to set repeat mode.
	Tap to manage the music volume.
	Tap to pause playback.
	Tap to resume playback.
	Tap to skip to the next track on the album or in the playlist. Touch and hold to fast-forward in 3 second increments.
	Tap to go back to the beginning of the song. Tap twice to return to the previous song. Touch and hold to rewind in 3 second increments.

Multimedia



Tap to see the current playlist.



Tap to go to the playlists.

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. The **Search**, **Add to playlist**, **Share**, **Set as ringtone**, **Delete**, **Details**, **Help** and **Settings** options will be displayed.


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.
- 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.








Utilities


Setting your alarm


- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Alarm/Clock**  > .
- 2 Set the time and select **AM** or **PM**.
- 3 Set **Repeat**, **Snooze duration**, **Vibration**, **Alarm sound**, **Alarm volume**, **Auto app starter**, **Puzzle lock** and **Memo**.
- 4 Tap **Save** to save the alarm.

NOTE: To change alarm settings, tap the **Menu Key**  on the Alarms screen and select **Settings**.




Using your calculator

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Calculator** .
- 2 Tap the number keys to enter numbers.
- 3 For simple calculations, tap the function you want to perform (, ,  or ) followed by .

NOTE: For more complex calculations, tap the **Menu Key** , select **Scientific calculator**, then choose the desired functions.

NOTE: To check your previous calculation history, tap the **Menu Key** , select **Calculation history**.

Adding an event to your calendar


- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Calendar** .
- 2 Tap  and choose from **Day**, **Week**, **Month**, **Year**, or **Agenda** to change the month view.
- 3 Tap the date for which you wish to add an event.
- 4 Tap the **Event name** field and enter the event name.
- 5 Tap the **Location** field and enter the location. Check the date and enter the time you wish your event to start and finish.
- 6 If you wish to add a note to your event, tap the **Description** field and enter the details.
- 7 If you wish to repeat the alarm, set **REPEAT** and set **REMINDERS**, if necessary.
- 8 Tap **Save** to save the event in the calendar.

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** tab (if necessary) > **Voice Recorder** .
- 2 Tap  to begin recording.
- 3 Tap  to end the recording.
- 4 Tap  to listen to the recording.

NOTE: Tap  to access the list of recordings. You can listen to the saved recording. The available recording time may differ from actual recording time.

POLARIS Viewer 5

POLARIS Viewer 5 let you view various types of electronic documents such as MS Office, PDF, Text, and more.

- From the Home screen, tap  > **Apps** tab (if necessary) > **POLARIS Viewer 5** .

Google+

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


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

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

Utilities

Voice Search

Use this application to search webpages using voice.

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

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

Downloads

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

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

The Web

Browser







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

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

Using the Browser toolbar

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

	Tap to go back one page.
	Tap to go forward one page, to the page you connected to after the current one. This is the opposite of what happens when you tap the Back Key  , which takes you to the previous page.
	Tap to go to the Home page.
	Tap to add a new window.
	Tap to access bookmarks.

Viewing webpages

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

The Web

Opening a page

To open a new page, tap  > .

To go to an open page, tap , scroll up or down, and tap the page to select it.

Searching the web by voice

Tap the 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**  > **Add to bookmarks** > **OK**.

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

History

To open a web page from the list of recently visited web pages, tap  > **History** tab. To clear the history, tap the **Menu Key**  > **Clear all history**.

Chrome

Use Chrome to search for information and browse webpages.

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

Viewing webpages


Tap the address field, enter a web address or search criteria, and tap  on the keyboard.

Opening a page

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

To go to an open page, tap , scroll up or down and tap the page to select it.

Searching the web by voice

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

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

Syncing with other devices

Sync open tabs and bookmarks to use with Chrome from other devices when you are logged in with the same Google account.



To view open tabs on other devices, tap the **Menu Key**  > **Other devices**. Select a webpage to open.

Access bookmarks

To view bookmarks, tap the **Menu Key**  > **Bookmarks**.

Settings

Access the Settings menu

- 1 From the Home screen, tap  > **Apps** tab (if necessary) > **Settings** .
- OR**
- From the Home screen, tap the **Menu Key**  > **System settings**.
- 2 Select a setting category and configure the desired settings.

WIRELESS & NETWORKS

< **Airplane mode** >


Airplane mode – Activating airplane mode disables all wireless connections.

< **Wi-Fi** >

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

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: Access the Wi-Fi settings and tap the **Menu Key**  > **Advanced Wi-Fi** > **MAC address**.

< **Bluetooth** >

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

< **Mobile data** >

Displays the data usage and set mobile data usage limit.

< Call >

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

OUTGOING CALL

Auto retry – Sets the amount of time to wait before automatically redialing a call that failed to connect. Choose from **Off**, **10 seconds**, **30 seconds**, or **60 seconds**.

INCOMING CALL

Incoming call pop-up – If you select this function, the incoming call pop-up will be displayed when using the Camera and Videos applications.

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.

Privacy keeper – Hides the caller name and number for an incoming call.

Home button answers call – Allows you to press the Home button to answer the call.

Auto answer – Allows you to enable or disable Auto answer with handsfree.

ONGOING CALL

TTY mode – Sets the TTY mode to communicate with other TTY devices.

Hearing aids – Checkmark to turn on hearing aid compatibility.

END CALL

Save unknown numbers – Add unknown numbers to your contact list after a call.

Power button ends call – Checkmark to allow you to end voice calls by pressing the Power/Lock key.

Settings

OTHERS

DTMF tones – Sets the length of the DTMF tones. Choose **Normal** or **Long**.

Call restrictions – Allows you to restrict incoming or outgoing calls.

Call duration – View the duration of calls including Last call, Outgoing calls, Incoming calls and All calls.

Voice privacy – Checkmark to enable enhanced privacy mode.

< Wireless storage >

To share files with your phone and computer, turn on this menu.

< More ... >

Mobile networks – Turn Data enabled or the Data roaming on or off.

Default SMS app – You can choose the default SMS app, Hangouts or Messaging.

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.

DEVICE

< Sound >

SOUND PROFILE

Sound profile – Set the sound profile to **Sound**, **Vibrate only**, or **Silent**.

Volumes – Manage the volume for **Ringtone**, **Notifications**, **Touch feedback & system**, and **Music, video, games & other media**.

Quiet mode – Turn sound profile to silent which mute all sounds except alarm and media.

RINGTONES & VIBRATIONS

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

Incoming call vibration – Allows you to set your incoming call vibration.

Ringtone with vibration – Vibration feedback for calls.

SYSTEM

Voice notifications – Read out incoming call and message event automatically.

Notification sound – Allows you to set your notification sound.

Touch feedback & system – Set the touch feedback & system for **Dial pad touch tones**, **Touch sounds**, **Screen lock sound**, **Emergency tone** and **Vibrate on touch**.

< Display >

SCREEN

Brightness – Adjust the screen brightness. Checkmark to set the **Night mode**, your phone set brightness at 0% automatically between 00:00 AM ~ 06:00 AM.

Screen timeout – Set the amount of time before the screen times out.

Screen-off effect – Set the screen off effect used when the screen turns off.

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

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

Settings

FONT

Font type – Change the type of display font.

Font size – Change the size of the display font.

ADVANCED SETTINGS

Home button LED – Set the Home button LED brightness and type.

< Home screen >

SCREEN

Theme – Sets the screen theme for your device.

Wallpaper – Sets the wallpaper to use on your Home screen. Select it from **Gallery**, **Live Wallpapers**, or **Wallpaper gallery**.

Screen swipe effect – Sets the effect when you swipe to change screens. Choose from **Basic**, **Breeze**, **Accordion**, **Panorama**, **Carousel**, **Layer**, and **Domino**.

Allow Home screen looping – Checkmark to set the screens to scroll continuously, eliminating the need to scroll back in the opposite direction when you reach either end.

Portrait view only – Checkmark to set the Home screen is always displayed in portrait view.

DATA

Home backup & restore – Backup and restore the app, widget, and theme configurations.

TIPS

Help – You can get some informations about **Edit pages**, **Quick access**, **See wallpaper without items**, **Create and edit folder**, **Change icon & Switch to a widget** and **Manage apps**.

< **Lock screen** >

SCREEN SECURITY

Select screen lock – Set a screen lock type to secure your phone. Set **None**, **Swipe**, **Pattern**, **PIN** or **Password**.

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

Shortcuts – Customize the shortcuts on the lock screen.

Owner info – Show owner info on the lock screen.

LOCK TIME

Lock timer – Set the lock time after the screen times out.

Power button instantly locks – Set the screen lock when the Power/Lock Key is pressed.

< **Gestures** >

ANSWER ME

Silence incoming calls – Flip the device to silence incoming calls.

OTHERS

Snooze or turn off alarm – Flip the device to snooze or stop the alarm.

Pause video – Flip the device to pause the video.

Settings

Move Home screen items – Touch and hold an item and tilt the device to move it to other Home screen panels.

Help – Touch to get information on using the Gesture functions of your device.

SENSOR

Motion sensor calibration – Improve the accuracy of the tilt and speed of the sensor.

< Storage >

INTERNAL STORAGE – View the internal storage usage.

SD CARD – Check total available SD card space. Tap **Unmount SD card** for safe removal. If no SD card is mounted, tap **Mount SD card**. Tap **Erase SD card** if you want to delete all data from the SD card.

< Battery >

BATTERY INFORMATION

The Battery charge information is displayed on a battery graphic along with the percentage of the remaining charge and its status. Tap the Battery charge icon to display the Battery use screen to see battery usage level and battery use details. It displays which components and applications are using the most battery power. Tap one of the entries to see more detailed information.

Battery percentage on status bar – Checkmark to display the battery level percentage on the Status Bar next to the battery icon.

Battery SAVER

Tap the switch  to toggle between On and Off.

TURN BATTERY SAVER ON

Turn Battery saver on – You can choose the Turn Battery saver on mode **Immediately**, **10% battery**, **20% battery**, **30% battery**, **40% battery** or **50% battery**.

BATTERY SAVING ITEMS

Auto-sync – Turns off Auto-sync.

Wi-Fi – Turns off Wi-Fi if data is not in use.

Bluetooth – Turns off Bluetooth if it's not connected to a device.

Vibrate on touch – Turns off touch feedback.

Brightness – Adjusts the brightness.

Screen timeout – Adjusts the screen timeout.

Home button LED – Turns off the Home button LED.

Help - You can get more informations about battery saving items.

< Apps >

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

Swipe left and right to select one of the three tabs across the top of the screen to view detailed information for **DOWNLOADED**, **RUNNING**, and **ALL** applications.

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

Settings

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.

< Guest mode >

Use Guest mode when you let someone else use your phone. They will only be able to use the applications that you've selected. Once you set it up, you can easily put your phone in Guest mode by drawing the guest pattern on the Lock screen that you set, which is different from your normal unlock pattern.

NOTE: To use Guest mode, set the Lock screen to pattern lock. Guest can also use apps not pre selected but linked to preselected apps.

< Location access >

MODE

High accuracy – Use GPS, Wi-Fi and mobile networks to estimate location.

Battery saving – Use WI-FI and mobile networks to estimate location.

Device sensors only – Use GPS to pinpoint your location.

RECENT LOCATION REQUESTS

You can check about the location access that the list of modules currently being used.

LOCATION SERVICES

You can check about the Google location reporting **Location Reporting, Location History**.

< Security >

ENCRYPTION

Encrypt phone – Allows you to encrypt the phone to keep it secure. After encryption, a PIN or password needs to be entered each time you power the phone on.

STORAGE ENCRYPTION

Encrypt SD card – Allows you to encrypt the SD card data to keep it secure. After encryption, you will not be able to use it in other devices. Any data that is created or updated after disabling encryption will not be encrypted but the data that has been previously encrypted will remain encrypted.

PASSWORDS

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

PHONE ADMINISTRATION

Phone administrators – View or deactivate phone administrators.

Unknown sources – Default setting to install non-Play Store applications.

Verify apps – Disallow or warn before installation of apps that may cause harm.

CREDENTIAL STORAGE

Storage type – Set the storage type.

Trusted credentials – Display trusted CA certificates.

Install from storage – Choose to install encrypted certificates.

Settings

Clear credentials – Remove all certificates.


< **Language & input** >

Language – Sets the language to use on your device.

Personal dictionary – Displays a list of the personal words that you've added that are not in the standard dictionaries.

KEYBOARD & INPUT METHODS

Default – Sets the default on-screen keyboard to use when entering text.

Google voice typing – Checkmark to select the Google voice typing to enter data. Tap the setting icon  to change the following settings.

Choose input languages – If you uncheck the 'Automatic', you can choose the input methods.

Block offensive words – Checkmark to 'Block offensive words', it will be hidid recognized offensive text.

LG Keyboard – Checkmark to select the LG Keyboard to enter data. Tap the settings icon  to change the following settings:

Input language and type – Sets the keyboard language and type of keyboard.

Word suggestion – Sets word prediction and auto word correction.

Auto capitalize – Checkmark to automatically capitalize the first letter of each sentence.

Auto punctuation – Checkmark to insert a period when the space key is double-tapped.

Voice input – Select to display the voice typing key on the keyboard.

Hide keyboard – Checkmark to allow the on-screen keyboard to be hidden by swiping it downward.

Additional settings – Set the additional settings about **Keyboard Theme**, **Vibrate on keypress**, **Sound on keypress** and **Preview on keypress**.

Help – You can get more informations about LG keyboard.

SPEECH

Voice Search – Sets the following options, **Language**, **Speech output**, **Block offensive words**, **Hotword detection** and **Bluetooth headset**.

Text-to-speech output – Sets the preferred speech engine and speech rate (slow vs. fast). Also plays a short demonstration of speech synthesis.

MOUSE/TRACKPAD

Pointer speed – Sets the pointer speed using a slide bar to select it.

< Backup & reset >

BACKUP & RESTORE

Backup my data – Backup your app data, Wi-Fi passwords, and other settings to Google servers.

Backup account – Set your backup account.

Automatic restore – When reinstalling an app, restore backed up settings and data.

PERSONAL DATA

Factory data reset – Reset your settings to the factory default values and delete all your data.

Settings

SYSTEM

< Date & time >


Use 24-hour format – Checkmark to display the time using the 24-hour time format (for example, 13:00 instead of 1:00 pm).

Select date format – Sets the format for displaying dates.

< Accessibility >

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

SERVICES

TalkBack – Allows you to set up the TalkBack function which assists people with impaired vision by providing verbal feedback. Tap the 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

Large text – Checkmark to increase the size of the text.

Magnification gestures – When this feature is turned on, you can zoom in and out by triple-tapping the screen.

Shades – Set the screen to be shade of black.

HEARING

Mono audio – Checkmark to allow headset sound to be routed to both the right and left channel. To manually set the audio route, move the slider on the mono audio slide bar.

Captions – Set the caption style on your phone. **Language**, **Text size** and **Caption style**.

PHYSICAL AND MOTOR

Touch & hold delay – Sets the touch and feedback time. Choose from **Short**, **Medium**, or **Long**.

SYSTEM

Auto-rotate screen – Checkmark to allow the device to rotate the screen depending 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 key ends call – Checkmark so that you can end voice calls by pressing the Power/Lock Key.

Easy access – Turning this feature on allows you to activate an accessibility feature by pressing the Home Key 3 times. Choose from **Off**, **Show all**, **TalkBack**, and **Accessibility settings**.

Text-to-speech output – Sets the text-to-speech preferred engine and speech rate setting. Also plays a short demonstration of speech synthesis. Text-to-speech output provides an audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.

NOTE: Requires additional plug-ins to become selectable.

Settings

< PC connection >

Select USB connection method – Set the default mode used when connecting the phone to a PC via a USB cable. Choose from **Charge phone**, **Media sync (MTP)**, or **Send image(PTP)**.

Ask upon connecting – Checkmark to confirm the USB connection type when you connect to a PC.

Help – Displays connection settings information.

< About phone >

This menu allows you to manage your software updates and view various information relating to your device.

Phone name – Change your phone name. This will be your phone name for bluetooth, Wi-Fi Direct, etc.

Update Center – Check updates for apps and software provided by LG Electronics.

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

Status – Allow you to view your phone number, MIN, PRL version, ESN, MEID HEX, MEID DEC.

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

Hardware information – Allows you to view the Model number, Up time, Wi-Fi MAC address and Bluetooth address.

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

Legal information – Allow you to view LG apps rights agreement, open source licenses and Google legal information.

Patent information – Display LG patent information.

Phone software update

Update your smart phone without a PC (FOTA)

This feature allows you to conveniently update your phone's software to a newer version via Firmware Over-the-Air (FOTA), without connecting with to a USB cable.

- 1 From the Home screen, tap the **Menu Key**  > **System settings** > **About phone** > **Update Center** > **Software Update**.
- 2 Select the desired option.

Update now – You can check the new software update and conduct the update.

Check current version – You can check the current software version.

Last update – Displays the date of the last software update.

NOTE

- After download, you can install the software immediately or select a later time for the installation.
- Each software version is updated sequentially. Even after the update is completed, check if there is any newer version available.
- 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.

Accessories

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

Charger



USB cable

Connect your phone and PC.



Battery



User Guide

Learn more about your phone.



SD card (supports up to 4 GB)






NOTE:

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






FAQ




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	Question	Answer
Sub-Category		
Bluetooth		
Bluetooth Devices	What are the functions available via Bluetooth?	You can connect Bluetooth audio device such as Stereo/Mono headset, Car Kit and share pictures, videos, contacts, etc via Gallery/Contacts menu. Also when FTP server is connected to a compatible device, you can share contents stored in the microSD card.
Data		
Contacts Backup	How can I back up Contacts?	The Contacts data can be synchronized between your phone and Gmail™.
Data		
Synchronization	Is it possible to set up one-way sync with Gmail?	Only two-way synchronization is available.
Data		
Synchronization	Is it possible to synchronize all the Email folders?	The Inbox is automatically synchronized. You can view other folders by tapping the Menu Key  and tap Folders to choose a folder.
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	Is it possible to filter emails?	No, email filtering is not supported via the phone.
Phone Function		
YouTube™	Is it possible to play YouTube videos?	Yes, YouTube videos are supported but may have to be viewed through the YouTube application (and not the browser).


Category	Question	Answer
Sub-Category		
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 hrs. How can I change this?	<ol style="list-style-type: none"> 1. Open the message thread that contains the message you want to check. 2. Touch and hold the message. In the context menu, tap View message details.
Phone Function microSD Card	What is the maximum supported size for a memory card?	32 GB 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?	<p>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.</p> <p>How to save with Wait and Pause:</p> <ol style="list-style-type: none"> 1. From the Home screen, tap the Phone Key  2. Enter the number, then tap the Menu Key  3. Tap Add 2-sec pause or Add wait.


FAQ

Category	Question	Answer
Sub-Category		
Phone Function Security	What are the phone's security functions?	You are able to set the phone to require the entry of a screen lock (Pattern, PIN, Password) before the phone can be accessed or used.
Phone Function Unlock Pattern	What should I do if I forget my the Unlock Pattern?	After attempting the Unlock Pattern 5 times, you can tap the Forget Pattern? option and use your Google account information or backup PIN to unlock your phone.
Phone Function Unlock Pattern	What should I do if I forgot the Unlock Pattern and I didn't create the Google account on the phone?	<p>Without entering the Unlock Pattern, you will not be able to access your phone.</p> <p>Caution: If you perform a factory reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a factory reset.</p> <p>How to perform a factory reset:</p> <ol style="list-style-type: none">1. Turn the power off.2. Press and hold the Power/Lock Key  + Volume Down Key .3. When the Factory Hard Reset welcome screen appears release all of the keys.4. Press the Power/Lock Key  to continue or any other key to cancel.5. Press the Power/Lock Key  once more to confirm or any other key to cancel.6. Your phone will perform a factory reset.
Phone Function Unlock Pattern	How do I create the Unlock Pattern?	<ol style="list-style-type: none">1. From the Home screen, tap the Menu Key .2. Tap System settings > Lock screen.3. Tap Select screen lock > Pattern. The first time you do this, a short tutorial about creating an Pattern appears.4. Set up by drawing your pattern once, then again for confirmation.

Category	Question	Answer
Sub-Category		
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 bilingual capabilities. To change the language: 1. From the Home screen, tap the Menu Key  and tap System settings . 2. Tap Language & input > Language . 3. Tap the desired language.
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 15 seconds. How can I change the amount of time for the backlight to turn off?	1. From the Home screen, tap the Menu Key  . 2. Tap System settings > Display . 3. Tap Screen timeout . 4. Tap the preferred screen backlight timeout time.
Phone Function Audible tap tones	When I dial a number, the phone plays tones. How do I turn this off?	1. From the Home screen, tap the Menu Key  . 2. Tap System settings > Sound . 3. Tap Dial pad touch tones to remove the checkmark and disable the function.
Phone Function Wi-Fi & 3G	When Wi-Fi and 3G 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, view the 3G or Wi-Fi icon at the top of your screen.

FAQ

Category	Question	Answer
Sub-Category		
Phone Function Home screen	Is it possible to remove an application from the Home screen?	Yes. Just touch and hold the icon until the trash can icon appears at the top of the screen. Then, without lifting your finger, drag the icon to the trash can.
Phone Function Application	I downloaded an application and it causes a lot of errors. How do I remove it?	<ol style="list-style-type: none">1. From the Home screen, tap the Menu Key .2. Tap System settings > Apps.3. Tap a tab at the top of the screen and the application.4. Then tap Uninstall and OK to confirm.
Phone Function Charger	Is it possible to charge my phone by USB cable without installing the necessary USB driver?	Yes, the phone will get charged by the USB cable irrespective of whether the necessary drivers are installed or not.
Phone Function Ringtones	Can I use music files for my ringtone?	Yes. After saving a music file you can use it for your ringtone. <ul style="list-style-type: none">• Touch and hold a song in a library list. In the menu that opens, tap Set as ringtone.
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 Off or Vibrate, will I hear my Alarm?	Your Alarm is programmed to be audible even in these scenarios.
Phone Spec Band	Which wireless bands are supported by the phone?	Your phone is able to operate on the 800Mhz and 1900MHz bands.

Category	Question	Answer
Sub-Category		
Recovery Solution Factory Reset	How do I perform a factory reset?	<ol style="list-style-type: none">1. From the Home screen, tap the Menu Key .2. Tap System settings > Backup & reset > Factory data reset.3. Read the warning and tap Reset phone.4. Tap Erase everything and OK to confirm. <p>Attention: If a factory reset is performed, all installed application and user data will be erased. Please remember to back up any important data before performing a factory reset.</p>

For Your Safety

Important Information

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

Before You Start

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

Safety Instructions

WARNING! To reduce the possibility of electric shock, do not expose your phone to high humidity areas, such as the bathroom, swimming pool, etc.

Always store your phone away from heat. Never store your phone in settings that may expose it to temperatures less than 32°F or greater than 104°F, such as outside during extreme weather conditions or in your car on a hot day. Exposure to excessive cold or heat will result in malfunction, damage and/or catastrophic failure.

Be careful when using your phone near other electronic devices. RF emissions from your mobile phone may affect nearby in adequately shielded electronic equipment. You should consult with manufacturers of any personal medical devices such as pacemakers and hearing aides to determine if they are susceptible to interference from your mobile phone. Turn off your phone in a medical facility or at a gas station. Never place your phone in a microwave oven as this will cause the battery to explode.

IMPORTANT! Please read the TIA SAFETY INFORMATION before using your phone.

Safety Information

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this user guide.

- ▶ Do not disassemble this unit. Take it to a qualified service technician when repair work is required.
- ▶ Keep away from electrical appliances such as TVs, radios, and personal computers.
- ▶ The unit should be kept away from heat sources such as radiators or cookers.
- ▶ Do not drop.
- ▶ Do not subject this unit to mechanical vibration or shock.
- ▶ The coating of the phone may be damaged if covered with wrap or vinyl wrapper.
- ▶ Use dry cloth to clean the exterior of the unit. (Do not use solvent such as benzene, thinner or alcohol.)
- ▶ Do not subject this unit to excessive smoke or dust.

- ▶ Do not keep the phone next to credit cards or transport tickets; it can affect the information on the magnetic strips.
- ▶ Do not tap the screen with a sharp object; otherwise, it may damage the phone.
- ▶ Do not expose the phone to liquid or moisture.
- ▶ Use the accessories like an earphone cautiously. Do not tap the antenna unnecessarily.

microSD card information and care

- ▶ The microSD card cannot be used for recording copyright-protected data.
- ▶ Keep the microSD card out of the small children's reach.
- ▶ Do not leave the microSD card in extremely hot location.
- ▶ Do not disassemble or modify the microSD card.

HAC

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

FCC RF Exposure Information

WARNING! Read this information before operating the phone.

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are

consistent with the safety standard previously set by both U.S. and international standards bodies.

The design of this phone complies with the FCC guidelines and these international standards.

CAUTION

Use only the supplied antenna. Use of unauthorized antennas or modifications could impair call quality, damage the phone, void your warranty and/or result in violation of FCC regulations. Do not use the phone with a damaged antenna. A damaged antenna could cause a minor skin burn. Contact your local dealer for a replacement antenna.

Body-worn Operation

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

Part 15.19 statement

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

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

Part 15.21 statement

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

Part 15.105 statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If you experience interference with reception (e.g., television), determine if this equipment is causing the harmful interference by turning the equipment off and then back on to see if the interference is affected. If necessary, try correcting the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.

For Your Safety

- ▶ 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.

Cautions for Battery

- ▶ 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.
- ▶ Battery usage by children should be supervised.

- ▶ Avoid dropping the phone. If the phone 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, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.

Adapter (Charger) Cautions

- ▶ Using the wrong battery charger could damage your phone and void your warranty.
- ▶ The adapter or battery charger is intended for indoor use only.

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

Avoid damage to your hearing

Damage to your hearing can occur if you are exposed to loud sound for long periods of time. We therefore recommend that you do not turn on or off the handset close to your ear. We also recommend that music and call volumes are set to a reasonable level.

- ▶ If you are listening to music while out and about, please ensure that the volume is at a reasonable level so that you are aware of your surroundings. This is particularly imperative when attempting to cross the street.

Wi-Fi Caution

This device is capable of operating in 802.11a/n mode. For 802.11a/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 802.11a/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.

Safety Guidelines

TIA Safety Information

Provided herein is the complete TIA Safety Information for Wireless Handheld phones. Inclusion of the text covering Pacemakers, Hearing Aids, and Other Medical Devices is required in the owner's manual for CTIA Certification. Use of the remaining TIA language is encouraged when appropriate.

Exposure to Radio Frequency Signal

Your wireless handheld portable telephone is a lowpower radio transmitter and receiver. When it is ON, it receives and also 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)

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).

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

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

Antenna Care

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

Tips on Efficient Operation

For your phone to operate most efficiently: Don't touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone

to operate at a higher power level than otherwise needed.

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 AT&T.

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

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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.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if they are 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. Turn your phone OFF before boarding an aircraft.

Blasting Areas

To avoid interfering with blasting operations, turn your phone OFF when in a 'blasting areas 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.

Charger and Adapter Safety

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

Battery Information and Care

- ▶ Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- ▶ Please read the manual of specified charger about charging method.
- ▶ Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
- ▶ Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.
- ▶ Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your phone in a pocket or bag without covering the receptacle of the phone

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(power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.

- ▶ Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- ▶ Never store your phone in temperature less than -4°F or greater than 122°F. Charge the battery in range of 0°C ~ 45°C.
- ▶ Charging temperature range is regulated between 0°C and 45°C. Do not charge the battery out of recommended temperature range. Charging out of recommended range might cause the generating heat or serious damage of battery. And also, it might cause the deterioration of battery's characteristics and cycle life.
- ▶ Do not use or leave the battery under the blazing sun or in heated car by sunshine. The battery may generate heat, smoke or flame. And also, it might cause the deterioration of battery's characteristics or cycle life.
- ▶ The battery pack has protection circuit to avoid the danger. Do not use nearby the place where generates static electricity more than 100V which gives damage to the protection circuit. If the protection circuit were broken, the battery would generate smoke, rupture or flame.
- ▶ If the skin or cloth is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation.
- ▶ Please take your phone to an authorized service center immediately if this occurs.
- ▶ Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.
- ▶ Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.
- ▶ The charger and adapter are intended for indoor use only.
- ▶ Talking on your phone for a long period of time may reduce call quality due to heat generated during use.

Explosion, Shock, and Fire Hazards

- ▶ Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- ▶ Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it is dirty.
- ▶ When using the power plug, ensure that it is firmly connected. If it is 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.
- ▶ Do not 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.

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- ▶ 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. (Ring tones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- ▶ When you use the phone in public places, set the ring tone to vibration so as not to disturb others.
- ▶ Do not turn your phone on or off when putting it in your ear.
- ▶ Your phone is an electronic device that generates heat during normal operation. Extremely prolonged, direct skin contact in the absence of adequate ventilation may result in discomfort or minor burns. Therefore, use care when handling your phone during or immediately after operation.

Caution: Avoid potential hearing loss.

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices).

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

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device: **204 Safety**

- ▶ Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- ▶ When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- ▶ Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise.
- ▶ Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- ▶ Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- ▶ Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio

device, discontinue use and consult your doctor.

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

Safety 205

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.

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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](http://www.cdc.gov/niosh/topics/noise/default.html)

FDA Consumer Update

The U.S. Food and Drug Administration 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 radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the Home screen. 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 radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a

number of steps, including the following:

- ▶ Support needed research into possible biological effects of RF of the type emitted by wireless phones;
 - ▶ Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
 - ▶ Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.
- ▶ The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:
- ▶ National Institute for Occupational Safety and Health
 - ▶ Environmental Protection Agency
 - ▶ Occupational Safety and Health Administration
 - ▶ National Telecommunications and Information Administration
- The National Institutes of Health

participates in some interagency working group activities, as well.

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

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

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

The term ‘wireless phone’ refers here to handheld wireless phones with built-in antennas, often called ‘cell’, ‘mobile’, or ‘PCS’ phones. These types of wireless

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phones can expose the user to measurable radiofrequency energy (RF) 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 radiofrequency energy (RF) 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 don't 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 10 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 radiofrequency energy (RF). The FDA has been a leading participant in the World Health Organization International Electromagnetic 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

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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 energy (RF) 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 telephones 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 Engineers (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/oet/rfsafety>) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has the FDA done to measure the radio frequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radio frequency energy (RF) 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 tissuesimulating 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 radiofrequency 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 radiofrequency energy (RF). 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 do 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

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radiofrequency energy (RF), 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 energy (RF) from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure electromagnetic 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>, click on "C" in the index and "Cell Phones")

Federal Communications Commission (FCC)
RF Safety Program
(<http://www.fcc.gov/oet/rfsafety>)

International Commission on Non-Ionizing
Radiation Protection
(<http://www.icnirp.de>)

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

National Radiological Protection Board (UK)
(<http://www.hpa.org.uk/radiation/>)

10 Driver Safety Tips

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

When operating a car, driving is your first responsibility.

When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker

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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. Do not 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. Don’t 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 is 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.

For more information, please call to 888-901-SAFE, or visit our website <http://www.ctia.org>.

Consumer Information on SAR (Specific Absorption Rate)

This model phone meets the government’s requirements for exposure to radio waves.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific

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studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg.* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR

value for this phone when tested for use at the ear is **X.XX** W/kg and when worn on the body, as described in this user's manual, is **X.XX** W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements.) While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID **ZNFC410**.

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.

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Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



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

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced

in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

When you’re talking on a cell phone, it’s recommended that you turn the BT (Bluetooth) 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

