



# User Guide





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User Guide

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# Guía del Usuario



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## Before you begin

Before reading this user guide and getting started, please review the separate Product Safety and Warranty Information guide for important product safety and warranty information about your device.

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## Phone overview

### Front View



1. **Earpiece** Lets you hear callers and automated prompts.
2. **Proximity sensor** Senses proximity toward other objects (such as your head) so that tap commands are not accidentally activated during a call. It also employs an ambient sensor which measures the surrounding light and adjusts the LCD brightness to provide a vivid screen.

#### NOTES

- Do not block the sensor or near the sensor to avoid problems with the touchscreen.
- When receiving and making calls, the proximity sensor automatically turns the backlight off and locks the touchscreen by sensing when the phone is near your ear. This extends battery life and prevents you from unintentionally activating the touchscreen during calls.

3. **QuickTap bar** Provides icons for quick, one-touch access to the apps you use most often.

#### NOTE

You can change the icons in the QuickTap Bar to suit your needs. To reposition, add, or remove an icon, see page 17.

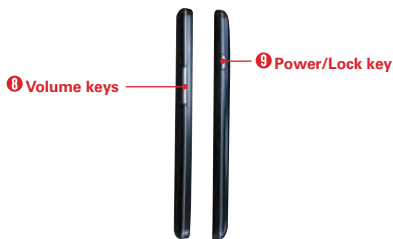
4. **Home key** Press to return to the Home screen (or your default Home screen panel from any of the Home screen extension panels). You can also press it to wake your phone from screen timeout. Press and hold it to display recently used apps with access to the **Task Manager** app.

**NOTE** The **Home key** LED will illuminate when you have pending notification(s).

5. **Back key** Tap to return to the previous screen. It also closes pop-up items such as menus, dialog boxes, and the on-screen keyboard.
6. **Menu key** Tap to open an Options menu with options that affect the current screen or app. This only applies when available, depending on the screen or app.
7. **Home screen** Displays all of the items needed to operate your phone including icons for app access, widgets, and the Status Bar (with status icons) allowing simple touch access to all of its functions and features.

**WARNING!** Placing a heavy object on the phone or sitting on it can damage the LCD and touchscreen functions. Covering the proximity sensor with a protective film could cause the sensor to malfunction.

## Side Views



8. **Volume keys** Press to adjust the ringer, the media volumes, or the in-call volume during a call.
9. **Power/Lock key** Press to turn off the screen backlight and lock the screen, or turn the screen backlight back on. Press and hold to turn the phone on/off, restart it, activate/deactivate Airplane mode, and change the sound settings.

## Top and Bottom View



10. **3.5mm Headset jack** Allows you to plug in an optional headset for convenient, hands-free conversations. You can also plug in headphones to listen to music.

11. **Microphone** Transmits your voice to the other caller. It's also used for voice-activated functions and voice recorder functions.

**NOTE** Please be careful not to block the microphone with your hand during calls.

12. **USB/Charging port** Allows you to connect the phone and the USB Cable for use with the Charger Adapter, or other compatible accessories.

**NOTE** You may purchase a separate fast data cable from LG for higher data transfer speed with compatible devices (e.g. laptop).

## Rear View





13. **Camera lens** Use to take photos and record videos. Keep it clean for optimal performance.
14. **Flash** Brightens up the captured image or recorded video when you turn on the flash.
15. **MicroSD Card slot** Use for additional storage space of items such as pictures, videos, music, etc.
16. **Speaker** Use to listen to the audio from the selected function (e.g., music, videos, sound clips, etc.).
17. **Battery** Fully charge the battery before initial use to optimize your battery life.
18. **Back cover** Protects the battery and internal antenna. Keep it from getting scratched or damaged.

## Installing the battery

Before you can start using your new phone, you'll need to do a little set up such as installing and charging the battery.

1. To remove the back cover, hold the phone firmly in one hand. With your other hand, place your thumbnail in the cutout on the side of the phone as shown in the illustration below.

**NOTE** Make sure to turn the phone off before removing the battery.



2. Insert the battery into the opening on the back on the phone, making sure the connectors align ❶ and press down until it clicks into place ❷.



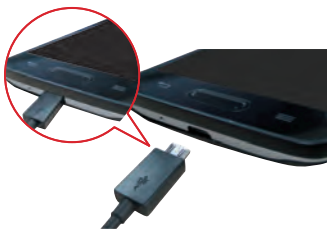
3. Align the back cover over the battery compartment ❶ and press down along the outer edge of phone ❷.



## Charging the phone

Your phone comes with a USB Cable and a Charger Adapter which connect together to charge your phone. Fully charge the battery before using your phone for the first time to improve your battery lifetime.

The USB/Charging port is at the bottom of the phone. Insert one end of the USB Cable into the port and plug the Charger Adapter into an electrical outlet.



**WARNING!** To avoid damage to your phone's port and cable plug, orient the plug with the port before inserting it.

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

**NOTE** Only use approved charging accessories to charge your LG phone. Improper handling of the USB/Charging Port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.

## 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.

### Extending your phone's battery life:

- ▶ Reduce the screen brightness setting and set a shorter screen timeout.
- ▶ Turn off radio communications (such as Wi-Fi, Bluetooth, GPS, etc.) that you're not actively using.
- ▶ Turn off automatic syncing for Gmail, Calendar, Contacts, and other apps.
- ▶ Monitor the battery use screen to identify if apps you've downloaded are consuming a large percentage of your battery power.


**NOTE** Allowing other devices to use your phone's hotspot connection will also drain your battery more quickly.

### To check the battery power level:

- ▶ From the Home screen, tap the **Menu key**  > **Settings** > **About phone** > **Battery**.

The battery status (charging or discharging) and battery level (percentage charged) are displayed.



### To monitor and control how battery power is being used:

- ▶ From the Home screen, tap the **Menu key**  > **Settings** > **About phone** > **Battery** > **Battery use**.


A battery usage graph is displayed along with battery usage time, estimated time remaining, and last 3 hours usage. The screen also lists the apps or services using battery power, listed in order from the greatest to the least amount used.

### Battery saver mode

Battery saver mode changes certain settings to conserve battery power until you can recharge your phone. If you turn Battery saver mode on, it will automatically activate when the battery charge level drops to the level you set. If Battery saver mode is off, you will be prompted to turn on Battery saver mode when the battery reaches low levels.

1. From the Home screen, tap the **Menu key**  > **Settings** > **Battery** > **Battery saver** > **Turn Battery saver on**.
2. Select the option you want. Choose from **Immediately**, when the charge drops to **10%**, **20%**, **30%**, and **50%**.
3. Tap the switch  at the top of the screen to turn the feature on.



## The memory card

**WARNING!** Unmount the microSD card before removing it from the phone to avoid damaging it. From the Home screen, tap the **Menu key**  > **Settings** > **Storage** > **Unmount SD card**.

1. Remove the back cover.
2. Insert the memory card into the slot (on the right side of the back of the phone) with the gold contact area facing downward.




## Turning the Phone On and Off

- ▶ To turn on your phone, press and hold the **Power/Lock key**  (on the right side of the phone) for a couple of seconds until the screen lights up.
- ▶ To turn off the phone, press and hold the **Power/Lock key**  (on the right side of the phone), tap **Power off** in the menu that appears, then tap **OK** to confirm.

## Locking and unlocking the screen

### Using a Screen Lock

Set a screen lock to secure your phone and prevent unauthorized use.

- ▶ From the Home screen, tap the **Menu key**  > **Settings** > **Lock screen** > **Select screen lock**, then select your lock type (**Swipe**, **Knock Code**, **Pattern**, **PIN**, or **Password**).

**NOTE** If you choose **Pattern**, you'll be prompted to create a Backup PIN as a safety measure in case you forget your unlock pattern.

**CAUTION** Sign in to (or create) a Google Account before setting a screen lock (and remember the Backup PIN you created when creating your screen lock) to reduce the risk of needing to perform a Hard Reset which erases all of your data.

**WARNING** It's very important to remember the screen lock you set. After five incorrect attempts you'll be prompted to enter a phrase to verify that you're trying to unlock your phone. The phone will automatically reset itself and erase all of the phone's data after ten incorrect attempts.

### When you can't recall your screen lock:

If you activated a Google Account on the phone, after 5 unsuccessful attempts you'll be prompted to enter a phrase to verify that you're attempting to unlock the phone. Then:

- ▶ If you forgot your unlock pattern, you can tap **Forgot pattern?** (at the bottom of the screen). You can sign in to your Google Account or enter your Backup PIN to regain access to your phone.







If a Google Account wasn't activated on the phone before setting the lock (or you also forgot your Backup PIN), the only way to regain access to the phone is to perform a Hard Reset which erases all of your user data.

**CAUTION** If you perform a Hard Reset, all user apps and user data will be deleted.

### Performing a Hard Reset (Factory Reset)


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

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

1. Turn the phone off.
2. Press and hold the **Power/Lock key**  (on the right side of the phone) and the **Down Volume key**  (on the left side of the phone) at the same time.
3. When the Factory data reset screen appears, release both of the keys.
4. Use the **Volume keys**  to highlight **Factory data reset**, then press the **Power/Lock key**  to confirm.
5. Use the **Volume keys**  to highlight **Yes**, then press the **Power/Lock key**  to confirm one more time.
6. Your phone will perform a factory reset.

## To unlock the phone

If you don't use the phone for a while, the screen backlight will turn off to conserve battery power. To wake up the phone and unlock the screen:

1. Turn the screen on.
  - ▶ Press the **Power/Lock key**  on the right side of the phone.
2. The default Lock screen will appear.
  - ▶ To unlock the screen, swipe your finger across the screen in any direction.
  - ▶ To use a Swipe Lock screen shortcut, swipe the shortcut icon (at the bottom of the screen) in any direction. The screen will unlock and launch the app.


**NOTE** The default Lock screen simply locks the screen to prevent unintentional actions. For more security to guard against unauthorized use, you can set an unlock requirement (such as a pattern, PIN, or password) that will need to be entered to unlock it. Please refer to **Using a Screen Lock** on page 11 for more information.

**TIP** Swiping from the left edge of the Lock screen to add a widget to your Lock screen.

## Automatic timeout

If you're not actively using your phone, it will automatically timeout by turning off the backlight and locking the screen. This helps to prevent accidental taps and saves battery power.

## Changing the screen timeout



- ▶ From the Home screen, tap the **Menu key**  > **Settings** > **Display** > **Screen timeout**.

## To manually turn off and lock the screen:


- ▶ Press the **Power/Lock key**  (on the right side of the phone).

Apps do not stop running when you lock the screen. It's recommended that you exit or stop all apps before entering Lock mode to avoid unnecessary charges (e.g. phone calls, web access, and data communications).

### To exit or stop apps:


- ▶ To use the Recent apps screen, press and hold the **Home key** , then swipe the app to the left or right off of the screen.
- ▶ To use the Battery use screen, tap the **Menu key**  > **Settings** > **About phone** > **Battery** > **Battery use**. Scroll to the Running apps list, then tap **Stop** next to each app to stop it from running.

### Camera shortcuts

- ▶ When the screen backlight is off, press and hold either of the **Volume keys**  (on the left side of the phone) to automatically open the Camera app.
- ▶ From the Swipe Lock screen, swipe the Camera icon in any direction.

### Swipe Lock screen shortcuts

There are four shortcut icons displayed at the bottom of the Swipe Lock screen. Swipe across any of the icons to open and use that app without unlocking the screen first.



When your phone is set to the Swipe Lock screen, you can change its shortcuts. From the Home screen, tap the **Menu key**  > **Lock screen settings** > **Shortcuts**. Tap the icon you want to change, tap the application you want, then tap **Save**.

### Global access shortcuts

There are two Global access shortcuts that you can access from any screen: Google Now and QuickMemo. To access these shortcuts, drag your finger upward from the main touch key area (Back, Home, Menu), move your finger over the icon you want to use, then lift your finger.


### Phone sounds off

You can quickly silence your phone.


- ▶ From the Home screen, press and hold the **Power/Lock key**  (on the right side of the phone), then tap the Silent mode icon .

**OR**




- ▶ Press the **Down Volume key**  (on the left side of the phone) until vibration is set, then press it again to turn off all sounds.

OR

- ▶ Swipe the Status Bar downward to open the Notifications panel, then tap the Sound icon until the Silent icon  is displayed.

## Data communications off

Airplane mode turns off all data communications.

- ▶ From the Home screen, press and hold the **Power/Lock key**  (on the right side of the phone), then tap **Turn on Airplane mode**.


OR

- ▶ Swipe the Status Bar downward to open the Notifications panel, then tap the Airplane mode icon  (blue is on and gray is off).

## To wake up your phone

- ▶ Press the **Power/Lock key**  (on the right side of the phone).

Or

- ▶ Press the **Home key** . The Lock screen will appear. Swipe the Lock screen in any direction to unlock the screen. The last screen you viewed will open.

## 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.

**NOTES** • To select an item, tap the center of the icon.

- Don't press too hard on the touchscreen. It's 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.

**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. For example, you can drag items on the Home screen to reposition them.

**Swipe, slide, or flick** – Move your finger quickly 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 browse through the different Home screens by swiping to the left or right, slide the screen up or down to scroll through a list, or remove an application from the Recent Apps screen by flicking its graphic off the screen.

**Double-tap** – Tap the screen twice quickly to zoom, highlight text, or turn the screen off. For example, quickly double-tap a section of a webpage to adjust that section to fit the width of the screen and zoom in and out when viewing a picture and when using Maps. Double-tap a word to highlight it. Double-tap on the Lock screen, the Status Bar, or an empty spot on the Home screen to turn the screen off.

**Pinch-to-zoom** – Use your index finger and thumb in a pinching motion (to zoom out) or spreading motion (to zoom in) when using Chrome, a map, photos, the Contacts list, the Favorites list, the Groups list, a music list, and Polaris Viewer 5 documents. Spread apart to make screen information larger (easier to see and read), or pinch together to view more area and information. The pinch gesture also changes the Home screen. Pinch in on the Home screen to change to mini canvas view, then spread apart to return to the normal Home screen view. Spread apart on the normal Home screen to hide all of your Home screen items, then pinch in to redisplay them.

**Rotate the screen** – From many apps and menus, the orientation of the screen adjusts to the device's physical orientation. You can deactivate this function in the Display settings menu.

## Home screen

The Home screen is the starting point to access all of your phone's features using simple motions on the touchscreen. It's comprised of multiple panels you can customize with shortcuts.

Simply swipe your finger to the left or right to view the Home screen panels. Tap any icon to open, access, and use it.

The QuickTap Bar is at the bottom of all of the Home screen panels. The icons displayed in this bar provide easy and one-tap access to the functions you use the most.



Tap the **Phone** icon to bring up the dialpad to make a call. The Dial tab is displayed, but this icon also provides access to other tabs (Recent, Contacts, Favorites, and Groups) at the top of the screen to make calls from information stored in your phone.



Tap the **Contacts** icon to open your contacts. The Contacts tab is displayed, but this icon also provides access to other tabs (Dial, Recent, Favorites, and Groups) at the top of the screen to help you find information stored in your phone.



Tap the **Camera** icon to take pictures and record videos.




Tap the **Messaging** icon to access the Messaging app, where you can view and create text and multimedia messages.




Tap **Apps** to view all of your installed apps. Simply tap any icon to open and use it.

### Changing the QuickTap Bar:


- ▶ To add an icon, drag it into the QuickTap Bar and release it.
- ▶ To remove an icon, drag it out of the QuickTap Bar to the **Remove** icon  (that appears at the top of the screen) and release it.
- ▶ To change the order of the icons, drag an icon to the new position.

## Customizing the Home screen

For more convenience using your phone, add your favorite apps, widgets, and downloads to the Home screen for quick access. You can also change the wallpaper to reflect your personal style.


**TIP** From the Home screen, tap the **Menu key** , tap **Home screen settings**, then checkmark **Portrait view only** to keep the Home screen from rotating to landscape view. This is a separate setting from the **Auto-rotate screen** setting that applies to the rest of the screens.

### To add items on your Home screen:

1. Touch and hold the empty part of any Home screen panel.
2. Tap the **Apps** or **Widgets** tab at the bottom of the screen.
3. Tap the app icon you want to automatically place it on the Home screen panel.
4. To exit, tap the **Back key**  or tap the Home screen panel.

**NOTE** You can also drag the app icon you want to any of the Home screen panels.

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

Touch and hold the icon you want to remove, drag it to the **Remove icon**  (that appears at the top of the screen), then release it.


**NOTE** To view the details of an app, drag the icon to the App info icon (that appears at the top of the screen).

## Moving items and creating folders

Drag an icon or widget to move it to any of the other Home screen panels. Drag an icon onto another icon to create a folder with both of the icons in it. Drag another icon onto the folder to add it to the folder to help keep you organized.

## Customizing app icons

You can create your own custom app icons using the images in your Gallery. Your customized icons are only applied to the Home screen. The Apps screen isn't affected by your changes.

1. Touch and hold the icon you want to customize, then release the icon. An editing icon  appears in its upper-right corner.
2. Tap the icon.
3. The following options are available.

- ▶ Tap the image you want from the **Theme icon** tab, and change the size (if desired), then tap **OK**.

### OR

- ▶ Tap the **Photo icon** tab, then tap **Add new** and select a size. Tap the album. Tap the image. Tap how to crop the image (**Crop photo** or **Crop picture**), then select **Just once** or **Always**. Crop the image, then tap **OK** or **Save**.


**TIP** Your custom photo icons are saved so you can easily select them for any of your icon images.

## Changing an icon into a widget

Some app icons can be changed into a convenient widget to use on your Home screen.

1. Touch, hold, and release a Home screen icon.
  - ▶ A blue frame appears around the icon if it can be resized and changed into a widget (if it can't, only the Edit icon is displayed).
2. Drag the corners of the frame to make it larger and change it into a widget.
  - ▶ Touch, hold, and release the widget again to change the size of the widget, if necessary.
  - ▶ You can also change it back into a normal icon by dragging the corners of the resizing frame back in.

## Home screen Options menu




From the Home screen, tap the **Menu key**  to access the following options:

- ▶ **Add apps & widgets** – Allows you to customize your Home screen with apps, widgets, and wallpaper.
- ▶ **Theme** – Sets the style of your Home screen. Choose from LG, Biz, and Marshmallow.
- ▶ **Home screen settings** – Sets the settings specific to the Home screen. (These are the same settings as in the full Settings menu in the Home screen sub-menu.)
- ▶ **Lock screen settings** – Allows you to change your Lock screen settings. (These are the same settings as in the full Settings menu in the Lock screen sub-menu.)
- ▶ **Settings** – Opens the full Settings menu.

### Mini panel view

Pinch in on the Home screen to change to mini panel view. Mini panel view allows you to manage your Home screen panels. You can add, delete, rearrange, and set your default panel.





- ▶ Tap the Add icon  to add a new panel.
- ▶ Drag a panel to the Remove icon  that appears at the top of the screen to delete it.
- ▶ Drag a panel to a new position to rearrange your panels.
- ▶ Tap **Set default Home screen** (at the bottom of the screen) to change the panel that is displayed when you press the **Home key** .

**NOTE** Tap any of the panels in mini panel view to go directly to that panel.

## Hide view

Place two fingers on the Home screen and spread them apart to hide all of the items on your Home screen. In hide view, only your wallpaper and the Status Bar are seen.

To return to normal view, place two fingers on the Home screen and pinch them in. You can also press the **Home key**  or the **Back key** .


## Dual view

Dual view allows you to customize your Home screen panels by displaying your Home screen panels (on top) and the Apps screen (on the bottom) at the same time.



- ▶ Touch and hold an empty spot on a Home screen panel.


**OR**

- ▶ From the Home screen, tap the **Menu key** , then tap **Add apps & widgets**.


In dual view, the current Home screen is displayed above selection choices. Three tabs are displayed along the bottom. Tap **App**, **Widgets**, or **Wallpaper**.

## The Apps screen

The Apps screen allows you to access all of the apps installed on your phone.

- ▶ From the Home screen, tap **Apps** .

### Apps screen Options menu

While viewing the Apps screen, tap the **Menu key**  to access the following options:

- ▶ **View apps by** – Allows you to change how your apps are displayed. Choose from **Alphabetical order**, **Downloaded date**, and **User customized**.
- ▶ **Show small/large icons** – Allows you to change the size of the icons.
- ▶ **Apps wallpaper** – Sets the wallpaper background displayed for your Apps screen.
- ▶ **Hide/Show apps** – Allows you to select which apps to hide (or show again) on the Apps screen.

### Opening, switching, and stopping apps

Multi-tasking is easy with Android because you can keep multiple apps running at the same time. Use and switch between several open apps. Android manages each running app to ensure that idle apps don't consume resources unnecessarily, but you can also manually stop apps from running.


### Opening an app

- ▶ On the Home screen: Tap the app icon you want to open.

**OR**



- ▶ From the Home screen: Tap **Apps**  > the **Apps** tab (if necessary), then tap the icon you want to open.

### Opening apps and switching apps


1. Open an app by tapping its icon.
2. Press the **Home key** .
3. Open another app.
  - ▶ Tap another app icon (on the Home screen or in the QuickTap Bar).



OR

- ▶ Tap **Apps** , tap the **Apps** tab (if necessary), then tap the app icon you want.
- 4. Press and hold the **Home key**  to open the Recent apps screen. Tap an open app to switch to it.

## Stopping apps from running

1. From the Home screen, tap the **Menu key**  > **Settings** > **Application manager**.
2. Scroll horizontally to display the **Running** app list tab, tap the desired app, then tap **Stop** (or **Force stop**) to stop it.

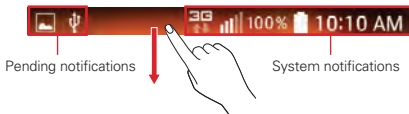
## Notifications

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


The Status Bar displays your phone's current status and pending notifications.

When a notification arrives, its icon appears at the top of the screen.

Pending notification icons appear on the left and system icons (that indicate things like Wi-Fi or battery strength) are displayed on the right.





## Accessing the Notifications Panel

Swipe the Status Bar downward to open the Notifications Panel. Tap a notification to open its associated app. To close the Notifications Panel, swipe the bar at the bottom of the screen upward or tap the **Back key** .

## Quick Settings

The Quick Settings allow you 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.

### To rearrange Quick Setting items on the Notification Panel

Swipe the Quick Settings bar to the left, then tap the **Edit** icon  to customize the Quick Settings bar. Checkmark the desired icons to display them (or remove the checkmark to hide). Drag an icon's handle  move it to another position on the bar.

**NOTE** Changing the checkmark(s) also reorganizes the icons in the Quick Settings bar.









**TIP** 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 following table lists some of the most common icons.

Icon	Description	Icon	Description
	No signal		Battery is fully charged
	Airplane mode is on		Battery is charging
	Connected to a Wi-Fi network		Downloading data
	Wired headset (with microphone) is connected		Uploading data




Icon	Description	Icon	Description
	Call is in progress		Acquiring GPS
	Receiving location data from GPS		Missed call
	Data is syncing		Bluetooth is on
	New Gmail message		System warning
	New Hangouts message		Alarm is set
	New text or multimedia message		New voicemail
	Song is playing		Ringer is silenced
	Phone is connected to PC via USB Cable		Battery saver is on


**NOTE** The location of the icons 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 keyboard and entering text

-  Tap once to capitalize the next letter you type. Double-tap for all caps.
-   Tap to switch to toggle between keyboards (normal letters and the numbers/symbols keyboard that also includes graphics, such as faces and images).

 Tap to enter text using your voice. This is only available when you activate Google voice typing in the keyboard settings. Touch and hold to access the LG Keyboard settings.

 Tap to access the LG Keyboard settings. Touch and hold to access voice input mode.



Tap to enter a space.



Tap to create a new line in the text 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. When the pop-up with its additional characters is displayed, slide your finger over the “á”, then lift your finger to enter it.

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



## Cut, copy, and paste text

You can highlight text to cut or copy it, then paste it into another text field.



- ▶ To highlight a word, double-tap it.
- ▶ To highlight a range of text, double-tap the word, then drag the blue highlight markers to encompass the text you want.
- ▶ To cut or copy highlighted text, tap **Cut** or **Copy** in the action box that appears.
- ▶ To paste text, tap the location where you want to place the text, then tap the marker . Tap **Paste** in the action box that appears.

The first time you open a Google app on your phone, you'll be required to sign in with your existing Google Account. If you don't have a Google Account, you'll be prompted to create one.

## Creating your Google Account

1. From the Home screen, tap the **Menu key**  > **Settings**.
2. Tap **Add account** (under the Accounts section) > **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 the **Next** icon . 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. From the Home screen, tap the **Menu key**  > **Settings** > **Add account** (under the Accounts section) > **Google** > **Existing**.
2. Enter your email address and password, then tap the **Next** icon .
3. Once you've set up your Google Account on your phone, it'll automatically be 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.

## Wi-Fi

By connecting 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're 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 the **Menu key**  > **Settings** > **Wi-Fi**.
2. Tap the Wi-Fi switch  to turn it 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're prompted to enter a password or other credentials. (Ask your network administrator for details).

**NOTE** The Status Bar displays a Wi-Fi icon to indicate its status.

### Adding a Wi-Fi network

1. Turn on Wi-Fi, then tap **Wi-Fi** to access its settings.
2. Tap the **Menu key**  > **Add network**.
3. Enter the Network SSID (network name).
  - ▶ Tap **Security** and select the network security type, if the network is secured.
  - ▶ Enter the required passwords and security credentials.

4. Tap **Connect** to save the network information.

### Removing a Wi-Fi network

1. Turn on Wi-Fi, then tap **Wi-Fi** to access its settings.
2. Touch and hold the network that you want to remove from your phone's memory.
3. Tap **Forget network** in the Context menu that appears.



## Bluetooth

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

- NOTES**
- 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 phone.

### Turning on Bluetooth and pairing 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 the **Menu key**  > **Settings** > **Bluetooth**.
2. Tap the **Bluetooth** switch  to turn it 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. Tap the device you want to pair with from the list.

**NOTE** Depending on the type of device, you may have to enter matching codes, confirm matching codes, or the devices may automatically pair.



Once pairing is successful, your phone 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 its app or from the **Downloads**  app.
  2. Tap **Bluetooth** in the sharing options list.
- NOTE** The method for selecting an item 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 the **Menu key**  > **Settings** > **Bluetooth**.
2. Tap the **Bluetooth** switch  to turn it 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 phone will be visible, tap the **Menu key**  > **Visibility timeout**.

4. Tap **Accept** to confirm that you're willing to receive data from the device.

## Connecting to Virtual Private Networks

Virtual private networks (VPNs) allow 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**  > **Settings** > **More...** > **VPN**.
2. Tap the type of VPN you want to add. Choose **Basic VPN** or **LG VPN**.

**NOTE** You must configure a screen lock to use VPN.


3. Tap **Add VPN network**.
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

You can connect your phone 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 tap the **Menu key**  > **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.





1. Use the USB Cable to connect the phone to a PC that has the Windows Media Player installed.
2. Tap **Media sync (MTP)**. 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 phone'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
Windows Media Player version	Windows Media Player 10 or higher

## Making a call



### Dialing a number

1. From the Home screen, tap the **Phone** icon  to open the dial pad in the Phone app.
2. Enter the number using the dial pad. To delete a digit, tap the **Delete** key .
3. Tap the **Call** button  to call the number you entered.
4. To end a call, tap the **End** button .

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


## Calling your contacts

### From your Contacts list

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

### Using Speed dial

Designate Speed dial numbers to your contact entries to use this calling feature.

1. From the Home screen, tap the **Phone** icon .
2. Touch and hold the Speed dial number you set.

**NOTE** For 2-digit speed dials, tap the first number, then touch and hold the second number until the phone begins dialing the number.

## Using Direct dial







Place a Direct dial widget on one of your Home screen panels (or even in the QuickTap Bar) to use this calling feature.


- ▶ Tap the Direct dial widget on the Home screen to call the number with a single tap.

## To end a call

- ▶ Tap the **End** button  on the Call screen to end the call.



If you accessed other apps while the call was in progress, there are several ways to return to the Call screen to end the call.

- ▶ Press the **Home key** , tap the **Phone icon** , then tap the **End** button  on the Call screen.
- ▶ Press the Home key , tap the timer at the top left corner of the Home screen, then tap the **End** button  on the Call screen.
- ▶ Drag the Notifications panel down and tap **End call** .



**NOTE** You can also press the **Power/Lock key**  (on the right side of the phone) to end the call, if you activated this feature in the Call settings menu.

## Answering and rejecting a call

### When the screen is locked

- ▶ Swipe the **Answer** icon  in any direction to answer the incoming call.
- ▶ Swipe the **Ignore** icon  in any direction to decline an incoming call.

### When the screen is unlocked

- ▶ Tap the **Answer** icon  to answer the incoming call.
- ▶ Tap the **Ignore** icon  to decline the incoming call.







**TIP** **Ignore with message**

You can send a message quickly using the Ignore with message 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, press 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 **Add call**  and dial the number. You can also use the recently dialed numbers list by tapping the **Recent** tab  or search your contacts by tapping the **Contacts** tab  and selecting the contact you want to call.
2. Tap the **Call** icon  to make the call.
3. Your initial call is placed on hold.
4. Tap the **Merge calls** icon  if you want to start a conference call.
5. To end active calls, tap the **End** icon .

**NOTE** You're charged for each call you make.



## Viewing your call logs

From the Home screen, tap the **Phone** icon , then tap the **Recent** tab . A complete list of all dialed, received, and missed calls is displayed.

## Viewing call entries


Open the **Recent** tab in the **Phone** app, then tap an entry to view all of the entries for that phone number. Calls are listed chronologically and each one includes the call type (received , dialed , and missed ), the date, and the time of the call. Tap any entry to view its details.

## Filtering your list of calls

To view a specific call list, from the **Recent** tab, tap the **Menu** key , then tap **Filter**. Select the call type you want to view. Tap the **Back** key  to return to the Recent tab screen.

## Clearing Recent call entries



You can delete the entire list of recent calls all at once, or selectively delete entries.

1. Open the **Recent** tab in the **Phone** app.
2. Tap the **Menu key** 
  - ▶ Tap **Clear** to select entries to remove from the list. Checkmark the entries to delete, tap **Clear**, then **Yes**.
  - ▶ Tap **Clear all** to remove all of the entries from the list. Tap **Yes** to confirm.



**NOTE** You can also select a specific number to be deleted. Touch and hold an entry in the **Recent** tab to open its Context menu. Tap **Clear all logs of this number**, then tap **Yes** to confirm.

## 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 the **Phone** icon .
2. Tap the **Menu key** .
3. Tap **Call settings** and choose the options that you want to adjust.


## Call Options menu

1. From the Home screen, tap the **Phone** icon  > the **Menu key**  to access the following options:
  - ▶ **Speed dial** – Allows you to assign a speed dial to Contact entries.
  - ▶ **Assisted dialing** – Checkmark to enable assisted dialing features (such as when you're traveling outside your home area).
  - ▶ **Edit tabs** – Allows you to customize the tabs at the top of the Phone app screen.
  - ▶ **Call settings** – Allows you to change your call settings. (These are the same settings as in the full Settings menu in the Call sub-menu.)




## 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 the **Contacts** icon  to open your contact list.
2. Tap the **Search contacts** box and enter the contact's 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 the **Phone** icon  then enter the new contact's number.
2. Tap **New contact** (above the keypad).
3. Tap the drop-down menu  (at the top of the screen), then select the account you want to save the contact to.
4. If you want to add a picture to the new contact, tap the **Image** icon . Choose **Take photo** or **Select from Gallery**.
5. Enter the contact's information by tapping each category of information and entering 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 the **Contacts** icon  to open your contact list.
2. Tap a contact to view its details.
3. Tap the gray star  in the upper-right corner of the screen. The star changes to yellow.

## Removing a contact from your favorites list



1. From the Home screen, tap the **Contacts** icon  to open your contact list.
2. Tap the **Favorites** tab  (at the top of the screen), then tap a contact to view its details.
3. Tap the yellow star  in the upper-right corner of the screen. The star changes to gray and the contact is removed from your favorites.

## Creating a group

1. From the Home screen, tap the **Contacts** icon  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.
  - ▶ Tap **Add members** to add contact entries to your new group.
  - ▶ Tap the **Group ringtone** field to set a ringtone when any of the group members call your phone.
  - ▶ Tap the **Account** field to change the account(s) you want to save the new group to.
4. Tap **Save** to save the group.

**NOTE** If you delete a group, the contacts assigned to that group won't be lost. They will remain in your contacts.


## Contacts settings

From the Home screen, tap the **Contacts** icon  > the **Menu key**  > **Settings** to access the settings specific to the Contacts app. These settings are not found in the full settings menu.

- ▶ **Contacts to display** – Sets which account(s) to use to display your contacts.
- ▶ **Sort search result by** – Sets how to display your search results. Choose **Frequency of contact** or **Alphabetical order**.

- ▶ **Sort list by** – Sets how to display your Contacts list. Choose **First name** or **Last name**.
- ▶ **View contact names as** – Sets how to display your contact names. Choose **First name first** or **Last name first**.
- ▶ **Only contacts with phones** – Checkmark to display only entries that include a phone number.
- ▶ **Sync now** – Allows you to manually sync your Contacts accounts.
- ▶ **Accounts & sync** – Allows you to set your Contacts to automatically sync on the schedule you set and displays your accounts list so you can also manage your account(s).
- ▶ **Online search** – Checkmark to allow you to search online directory accounts for your contacts.
- ▶ **Transfer type** – Sets how to transfer your Contacts files. Choose **Send as one file** or **Send separately**.

### Contacts Options menu

From the Home screen, tap the **Contacts** icon  > **Menu key**  to access the following options:


- ▶ **Delete** – Allows you to select one (or more) Contact entries to delete.
- ▶ **Share** – Allows you to select one (or more) Contact entries to share.
- ▶ **Send message** – Allows you to select one (or more) Contact entries to send a message.
- ▶ **Send email** – Allows you to select one (or more) Contact entries to send an email.
- ▶ **Speed dial** – Displays your list of Speed dials, then you can assign or delete them, as necessary.
- ▶ **Join contacts** – Allows you to join two (or more) contact entries into the same entry, or separate two (or more) contact entries into individual entries.



- ▶ **Import/Export** – Allows you to import or export vCard files to/from your phone's memory or your microSD card.
- ▶ **Edit tabs** – Allows you to customize the tabs at the top of the Contacts app.
- ▶ **Settings** – Allows you to change the settings specific to the Contacts app.
- ▶ **Help** – Displays Contact app information.

### Joining and separating contact entries

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

1. Open the Contacts app, then tap the **Menu key** .
2. Tap **Join contacts**.
3. Select a tab at the top of the screen.
  - ▶ Tap **Join suggestion** to select entries to merge.
  - ▶ Tap **Joined contacts** to select entries to separate.
4. Checkmark the entry (or entries) you want, then tap **Join** or **Separate**.




### Communicating With Your Contacts

The Contacts app shares information with many other apps allowing you to quickly and easily initiate communication with your saved entries.

#### General communication

The communication icons displayed depend on the types of information you have saved for individual contacts.

1. Tap a contact to view the entry details (from **Contacts**, **Favorites**, **Groups**, or **Recent**).
2. Tap the icon corresponding to the type of communication you want to start.



- ▶ The **Dial icon**  places a call to the number.
- ▶ The **Message icon**  starts a message.
- ▶ The **Mail icon**  starts an email.


**NOTE** You can also tap the contact's picture on the left side of the entry to display the Quick Contact icons.

## Messaging


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


### Sending a message


1. From the Home screen, tap the **Messaging icon** , then tap the **New icon**  (in the upper-right corner of the screen).
2. Enter the recipient(s) in the **To** field.

- ▶ Tap the **Contacts icon**  (to the right of the **To** field) to easily select one or more entries from your contacts.
- ▶ Manually enter a name or number. Matching contact entries will appear (below the **To** field). Tap one to enter it, or continue entering the number.

**NOTE** Enter a comma to separate manual number entries.

3. Tap the text field and enter your message.
4. Tap the **Menu key**  to access messaging options including **Add to Contacts**, **Insert smiley**, **Add subject**, **Discard**, and **Priority**.

**TIP** Tap the **Attach icon**  (on the right side of the screen) to attach a file you want to share.

**NOTE** All functions of the Messaging app will be limited if the LG Messaging app isn't set as the default SMS app. To set the default SMS app, open **Messaging** and tap the **Menu key**  > **Settings** > **Set default message app** > **Default message app**, then choose the desired app.

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

**NOTE** The 160-character limit may vary from country to country, depending on the language and how the text message is coded.

**WARNING** • If you enter multiple recipients to a text message, it's automatically converted into a multimedia message and you'll be charged for each person you send the message to.


- If an image, video, or audio file is added to a text message, it's automatically converted into a multimedia message and you're charged accordingly.

## View mode

Unread messages are located at the top of the screen. Opened messages that you've exchanged with others are displayed in threads in chronological order making it easy to see an overview of your conversation.

## Changing your message settings

Your phone message settings are pre-defined so you can send messages with less hassle, but you can change these settings according to your preferences.

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

Message settings include: **Set default message app**, **Storage** (sets limits, signature, and callback number), **Text message** (sets delivery reports and priority), **Multimedia message** (sets delivery reports, auto-retrieve, and priority), **Group Conversation**, **Conversation theme**, **Notification**, and **Send message with Enter key**.

## Messaging Options menu

Open the **Messaging** app and tap the **Menu key**  to access the following options:


- ▶ **Search** – Allows you to search for a message or text in a message.
- ▶ **Delete** – Allows you to select one (or more) messages to delete.
- ▶ **Settings** – Allow you to change the settings specific to the Messaging app.
- ▶ **Help** – Displays Messaging app information.

## Email

You can use the Email app to send, receive, and read emails from a variety of email providers. The Email app supports the following account types: POP3, IMAP, and Exchange.

Your service provider or system administrator can provide you with the account settings you need to set up your account(s).

### Managing an email account

Tap the **Email** icon  on the Home screen. The first time you open the Email app, a set-up wizard opens to help you to set up your email account(s).

After the initial set-up, the Email app displays the contents of your Inbox.


#### To add another email account:

Open the **Email** app, then tap the **Menu** key  > **Settings** > **Add account**.



### Switching between accounts

If you've added more than one account, you can easily switch between them. From any email folder, tap the current account (at the top of the screen), then tap the account you want to access.

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

Open the **Email** app, then tap the **Menu** key  > **Settings**. Tap **General settings** to configure settings that apply to all of your accounts. Tap an individual account to configure settings only for that particular account.

#### To delete an email account:




Open the **Email** app and tap the **Menu** key  > **Settings**. Tap the **Menu** key  again, then tap **Remove account** > tap an account > **Remove** > **Yes**.

## Working with account folders


Open the **Email** app, then 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

1. From the Home screen, tap the **Email** icon , then tap the **Compose** icon  (in the upper-right corner of the screen).
2. Enter the recipient(s) in the **To** field (and the **Cc/Bcc** field, if necessary).
  - ▶ Tap the **Contact** icon  (to the right of the field) to easily select one or more entries from your contacts.
  - ▶ Manually enter a name or email address. Matching contact entries will appear (below the field). Tap one to enter it, or continue entering the address.

**NOTE** Enter a semicolon to separate manual email entries.



3. Tap the message field and enter your message.
4. Tap the **Attach** icon  (at the top of the screen) to attach files, if needed.
5. Tap the **Send** button (at the top of the screen) to send the email.

If you're not 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.

## Receiving emails

When a new email arrives in your Inbox, you'll be notified by a sound or vibration (depending on your sound and vibration settings) and its notification icon appears on the Status Bar.




## Email Options menu

From the Home screen, tap **Email icon**  > **Menu key**  to access the following options:

- ▶ **Search** – Allows you to search for an email or text in an email.
- ▶ **Refresh** – Updates your email Inbox.
- ▶ **Folders** – Allows you to access your email folders including Drafts, Outbox, Sent, and Trash.
- ▶ **Sort by** – Allows you to change the order of your email list. Choose from **Date (Most recent)**, **Date (Oldest)**, **Sender (A to Z)**, **Sender (Z to A)**, **Size**, **Subject**, **Read/Unread**, **Attachment**, **Priority**, and **Star**.
- ▶ **Downloads** – Allows you to access your downloaded email files.
- ▶ **Settings** – Allow you to change the settings specific to the Email app.

## Camera

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

- TIP** You can quickly access the Camera app without unlocking your phone first.
- While the screen is off, press and hold the **Volume Down key**  or **Volume Up key**  on the left side of the phone.
  - From the Swipe lock screen swipe across the **Camera icon**  at the bottom of the screen.

### Getting to know the viewfinder




**Shot mode** – Choose from **Normal**, **Panorama**, **Continuous shot**, **Sports**.

**microSD card** – If displayed, indicates the photo will be stored in your external memory.


**Video mode** – Tap to switch to video mode.

**Capture** – Tap to take a photo.

**Gallery** – Tap to view the last photo you captured. This enables you to access your gallery and view saved photos while in camera mode.



**Flash** – Choose from **Off** , **On** , **Auto** .

**Settings** – Tap to open the camera's Settings menu.



**NOTE** The memory capacity may differ depending on how you configure your camera settings.

### Using the settings











In the viewfinder, tap the **Settings** icon  (in the lower-left corner) to open the camera's Settings menu. The setting categories are displayed in a grid. Tap one to access its available setting options, then tap the setting you want (scroll the list, if necessary). You can tap another category to make additional setting changes, then tap the **Back key**  when you've finished adjusting the settings.






This enables you to take a picture using a voice command.

Choose **On** or **Off**.

If set to **On**, say **Cheese**, **Smile**, **Whiskey**, **Kimchi** or **LG** to take a photo.

	This defines and controls the amount of light entering the lens. Slide the brightness indicator on the bar to set it.
	This enables you to select the focus mode. Choose from <b>Auto</b> , <b>Manual</b> and <b>Face tracking</b> .
	This sets the image size (resolution of the photo) and aspect ratio. Choose from <b>5M 2560x1920 (4:3)</b> , <b>W3M 2240x1344 (5:3)</b> and <b>1M 1280x960 (4:3)</b> .
	This 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 can't use the flash. Choose from <b>Auto</b> , <b>100</b> , <b>200</b> , <b>400</b> and <b>800</b> .
	This improves white balance in various lighting conditions. Choose from <b>Auto</b> , <b>Incandescent</b> , <b>Sunny</b> , <b>Fluorescent</b> and <b>Cloudy</b> .
	This applies color effects to your pictures. Choose from <b>None</b> , <b>Mono</b> , <b>Sepia</b> and <b>Negative</b> .
	This sets a delay after the Capture button is tapped. This is ideal if you want to be in the photo. Choose from <b>Off</b> , <b>3 sec</b> , <b>5 sec</b> and <b>10 sec</b> .
	This enables your phone's location-based services. Take pictures wherever you're 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. Choose <b>On</b> or <b>Off</b> .
	This sets a shutter sound. Choose <b>Off</b> or <b>Tone 1 (2, 3, or 4)</b> .
	This sets the action to take when the Volume keys are pressed. Choose <b>Capture</b> or <b>Zoom</b> .




	This sets the location where you want to save your images. Choose <b>SD card</b> or <b>Internal storage</b> .
	This provides a quick help guide. Tap it to learn how a function works.
	This restores all of the camera settings back to the default values.

**TIP** When you exit the Camera app, some settings return to their defaults, such as brightness, white balance, color effect, ISO, and timer. Check these before you take your next photo.

## Taking a quick photo

1. Open the **Camera** app.
2. Point the lens toward the subject you want to photograph.

**NOTE** The captured image retains the orientation in which it was taken. If you hold the phone both vertically and horizontally to take pictures, you'll need to rotate the phone to view full screen images in the Gallery app.

**TIP** While viewing a photo, you can tap the **Menu key** , then tap **Rotate right/left** to manually change its orientation.




3. Tap the **Capture icon**  to take the photo.

## Once you've taken a photo

1. Tap the image preview in the lower-right corner of the screen to view the last photo you captured.
2. Tap **Gallery**, then tap **Always** or **Just once**.

**NOTE** You can also choose the **Photo** app to view and edit your photo.

The following icons appear at the top of the Gallery screen:

	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**, **Lock screen wallpaper**, or **Wallpaper**.

**Move** – Tap to move the photo to another album.

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




**Copy to Clip Tray** – Tap to copy the picture to Clip Tray.

**Rename** – Tap to change 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.

	Rotates the image clockwise each time you tap it.
	Crops the photo using the freeform, original, or square cropping box.
	Applies a filter or a frame to your photo.

**Slideshow** – Tap to display a slideshow using all of your photos.

**Add location** – Tap to add location information to your photo.

**Details** – Tap to display information about the photo.

### Viewing your saved photos

You can access your saved photos when in camera mode. Just tap the image preview in the lower-right corner of the screen.

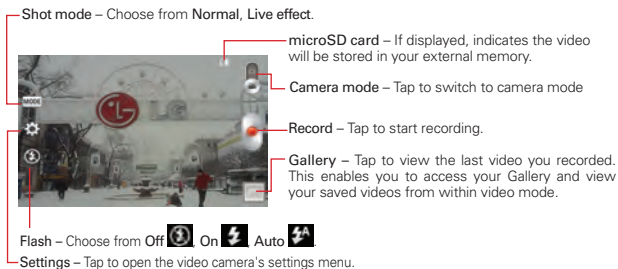
1. Choose the app to use to view and/or edit your photos. Tap **Gallery** or **Photos**.
2. Tap **Always** or **Just once**.

- ▶ 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 the **Video mode** icon  (on the viewfinder) to switch to video mode.










### Getting to know the viewfinder




**NOTE** You can use the pinch-to-zoom function (place two fingers on the screen, then spread them to zoom in and pinch in to zoom out) while you're recording a video.

### Using the settings

In the viewfinder, tap the **Settings** icon  (in the lower-left corner) to open the video camera's Settings menu. The setting categories are displayed in a grid. Tap one to access its available setting options, then tap the setting you want (scroll the list, if necessary). You can tap another category to make additional setting changes, then tap the **Back key**  when you've finished adjusting the settings.


	Tap to set the size (in pixels) of the video you want to record. Choose from <b>WVGA 800x480</b> , <b>VGA 640x480</b> , <b>QVGA 320x240 (MMS)</b> , and <b>QCIF 176x144 (MMS)</b> .
	This defines and controls the amount of light entering the lens to record your video. Slide the brightness indicator on the bar to set it.
	This improves the white balance in various lighting conditions. Choose from <b>Auto</b> , <b>Incandescent</b> , <b>Sunny</b> , <b>Fluorescent</b> , and <b>Cloudy</b> .
	This applies a color effect to use for your video. Choose from <b>None</b> , <b>Mono</b> , <b>Sepia</b> , and <b>Negative</b> .
	This enables your phone's location-based services for geo-tagging purposes.
	This sets the action to take when the Volume keys are pressed. Choose <b>Record</b> or <b>Zoom</b> .
	This sets the location where you want to save your videos. Choose <b>SD card</b> or <b>Internal storage</b> .
	This provides a quick help guide. Tap it to learn how a function works.
	Restores all of the video camera settings back to the default values.

## Recording a quick video

1. Open the **Camera** app, then tap the **Video mode** button .
2. The video camera viewfinder appears on the screen.
3. Point the lens toward the subject you want to capture in your video.

**NOTE** The video retains the orientation in which it was taken. If you hold the phone both vertically and horizontally to take videos, you'll need to rotate the phone to view your videos in full screen in the Gallery app.

4. Tap the **Record** icon  once to start recording.

**NOTE** The Record icon changes to the Pause icon  once the recording starts. Tap it to pause your recording.




5. A timer showing the length of the video is displayed.

6. Tap the **Stop** icon  (in the lower-right corner of the viewfinder) to stop recording.

### After recording a video

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

The following icons appear at the top of the Gallery screen:

	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.

Tap the **Menu key**  to open the Options menu to access:

**Move** – Tap to move the the video to another album.

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

**Trim** – Tap to trim the the video.


**Rename** – Tap to change the name of the selected video.

**Details** – Tap to view information about the video.

### Watching your saved videos


Access your saved videos when in video camera mode by tapping the image preview in the lower-right corner of the viewfinder.

1. In the viewfinder, tap the image preview in the lower-right corner of the screen.

2. Your Gallery will appear on the screen with your most recent recorded video displayed. Swipe to the left to scroll to your other videos.
3. Tap the **Play** icon  on a video to play it automatically.

**NOTE** You can also view your videos in the **Gallery** app or the **Videos** app.

## Adjusting the volume when viewing a video

To adjust the volume of a video while it's playing, press the **Volume keys**  on the left side of the phone.

**NOTE** You can also slide your fingertip vertically along the right side of the screen to adjust the volume while the video is playing.

## Gallery

You can store multimedia files in the internal and external memory for easy access to all of your multimedia files. Use the Gallery app to view multimedia files like pictures and videos.

- From the Home screen, tap **Apps**  > **Gallery** .

**NOTES**

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

## Viewing pictures

Open the **Gallery** app to display your available albums. When another app saves a picture, it automatically creates a download folder to contain the picture. For example, saving a picture from the Email app creates an Email folder and capturing a screenshot creates the Screenshots folder. Tap a folder to open it.





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

## Zooming in and out

- Double-tap anywhere on the image to zoom in, then double-tap again to zoom out.

- ▶ Place two fingers anywhere on the image and spread them apart to zoom in. To zoom back out, pinch them together or double-tap the screen.

## Playing videos


Open the **Gallery** app  and select an album. The **Play** icon  is displayed on video files. Tap an image to select it. Select the app to play it (tap the **Photos** app  or the **Videos** app ) , then tap **Always** or **Just once** and the video begins playback.

**TIP** Double-tapping the app (**Photos** app or **Videos** app) begins playing the video automatically.



**NOTES**

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


## Editing photos

When viewing a photo, tap the **Menu key**  to use the advanced editing options. You can rotate the image left or right, crop the image, edit it with special effects, or add location information.

## Deleting photos/videos

- ▶ While viewing an album, tap the **Delete** icon  (in the upper-right corner of the screen), then tap to checkmark the photos/videos to delete. When you finish checkmarking, tap **Delete** (at the bottom of the screen), then tap **Yes** to confirm.
- ▶ While viewing a photo/video, tap the **Delete** icon  (in the upper-right corner of the screen), then tap **Yes** to confirm.

## Setting a photo as your wallpaper

While viewing a photo, tap the **Menu key** , then tap **Set image as**. Choose the wallpaper location by tapping **Home screen wallpaper** or **Lock screen wallpaper**. Tap **Crop photo** or **Crop picture**, then tap **Always** or **Just once**. After you've cropped the image, tap **OK** (Gallery app) or **Save** (Photos app).



**TIP** Double-tapping an option (**Crop photo** or **Crop picture**) automatically starts the cropping function.




## Gallery Options menu

From the Home screen, tap **Apps**  > **Gallery**  > **Menu key**  to access the following options:

- ▶ **New album** – Allows you to create a new album.
- ▶ **Delete** – Allows you to select one (or more) albums to delete.
- ▶ **Hide/Show album** – Allows you to select one (or more) albums to hide or show.
- ▶ **View all files** – Combines all of your album files together for easy viewing without needing to switch albums.
- ▶ **Help** – Displays Gallery app information.
- ▶ **Settings** – Allows you to change the settings specific to the Gallery app.

## Slideshow

You can view your photos in a slideshow by album or by selecting all of your photos. From the Home screen, tap tap **Apps**  > **Gallery** .

- ▶ Tap the album with the photos you want to view, then tap the **Menu key**  > **Slideshow** > verify the slideshow settings > **Start**.
- ▶ Tap the **Menu key**  > **View all files** > **Menu key**  > **Slideshow** > verify the slideshow settings > **Start**.



Tap the **Back key**  to stop playing the slideshow.











## 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**  > the **Apps** tab (if necessary) > **Videos** .
2. Tap 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 adjust the video volume on a slide bar.
	Tap to toggle between the screen aspect ratio settings. Choose from Full screen, Original size, and Best fit.
	Tap to play the video in a QSlide window.
	Tap to lock the video screen.

To adjust 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 to open its Context menu to select **Share**, **Delete**, **Trim**, or **Details**.




**NOTE** While watching a video, slide up and down along the left side of the screen to adjust the screen brightness. Slide up and down along the right side of the screen to adjust the volume. Slide left and right along the bottom of the screen to rewind and fast-forward the playback.

## Videos Options menu

From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Videos**  > **Menu key**  to access the following options:

- ▶ **After playing video** – Allows you to set the action after the video ends. Choose from **Return to list**, **Play next video**, and **Replay video**.
- ▶ **Delete** – Allows you to select one (or more) videos to delete.

## Videos Options menu while playing a video



From the Home screen, tap **Apps**  > **Apps** tab (if necessary) > **Videos** . Tap the video you want to watch, then tap the **Menu key**  to access the following options:



- ▶ **Subtitles** – Allows you to set subtitles for the video.
- ▶ **Share** – Allows you to select the method to share the video.
- ▶ **Delete** – Deletes the video.
- ▶ **Settings** – Allows you to change the settings specific to the Videos app.
- ▶ **Details** – Displays the video's detail information.
- ▶ **Help** – Displays information about using the Videos app.










## Music

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

### Playing a song

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

	Tap to find 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 adjust 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.
	Tap to see the current playlist.
	Tap to go to the music library.

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

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

- NOTES**
- Some file formats are not supported, depending on the phone's software.
  - If the file size exceeds the available memory, an error may 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.

## QuickMemo


The QuickMemo function 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.

### Capturing a screen shot for your QuickMemo

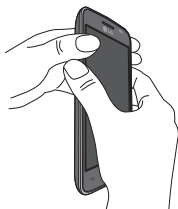
1. Access the screen you want to capture (for example, access the Calendar app to capture a screen to help with scheduling a meeting).
2. Capture the screen image.

► Press both of the **Volume keys** at the same time for one second.

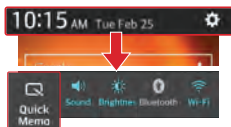
OR

► Drag the Status Bar down, then tap the **QuickMemo** icon  on the Quick Settings Bar.



3. Use the toolbar options (at the top of the screen) to create your memo on the captured screen.
4. Tap **Save** (in the upper-right corner of the screen) to save it in the QuickMemo folder in the Gallery app.

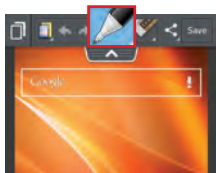


OR





## Creating a QuickMemo

1. Drag the Status Bar down and tap the **QuickMemo** icon  on the Quick Settings Bar.
2. Tap the **Memo background** icon  on the left side of the toolbar to select the QuickMemo background style. Choose from the current screen, memo paper, foggy glass, and parchment.



3. Create your memo using the toolbar options.

**TIP** Tap the Overlay icon  (in the upper-left corner of the toolbar) to display the QuickMemo function as a layer over the screen. You can access other phone features and still see your Quickmemo, then tap the Overlay icon  again to return to your QuickMemo.










4. Tap **Save** (in the upper-right corner of the toolbar) to save the memo to the QuickMemo album in your Gallery.

**NOTE** Please use a fingertip (not your fingernail) while using the QuickMemo function to avoid scratching your phone's touchscreen.

## Using the QuickMemo toolbar options

The following options are available in the QuickMemo toolbar at the top of the screen.


	Tap to keep the memo on top and continue using other phone features.
	Tap to select the type of background image you want to use.
	Tap to undo the previous action.
	Tap to redo the previously deleted action.

	Tap to select pen type, pen color, and the cropping tool.
	Tap to use the eraser to erase any part of the memo that you created.
	Tap to share your memo with others via any of the available applications.

## Viewing the saved QuickMemo




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

## Capturing a screen shot


To capture a screen shot without the QuickMemo function, press both the **Power/Lock key**  (on the right side of the phone) and the **Down Volume key** (on the left side of the phone) at the same time. The captured image is automatically saved in the **Gallery** app in the **Screenshots** folder.

## Alarm/Clock

### Setting your alarm


1. From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Alarm/Clock**  > the **Alarms** tab (if necessary) > the **New alarm** icon  at the bottom of the screen.
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**, as necessary.
4. Tap **Save** to save the alarm and automatically enable it.

### Alarm settings

To change the alarm settings, tap the **Menu key**  on the Alarms screen, then tap **Settings**. The Alarm settings include **Alarm in silent mode**, **Volume button behavior**, and **Puzzle lock**.




## Managing your alarms

After you create one (or more alarms):

- ▶ Tap the **Alarm** icon  (to the right of the alarm) to between enable between enable (blue) and disable (gray).
- ▶ Tap the alarm time to change any of that alarm's settings and save it.

**NOTE** The **Alarm/Clock** app has four tabs across the top of the screen giving you access to a variety of time functions. You can tap **Alarms**, **Timer**, **World clock**, or **Stopwatch**, or swipe horizontally to scroll through and access these functions.

## Calculator

1. From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Tools** folder  > **Calculator** .
2. Tap the number and function keys just like you would use a normal calculator.

## Calculator Options menu

Tap the **Menu key**  to access the Calculator Options menu.





- ▶ Tap **Scientific calculator** for more complex calculations.
- ▶ Tap **Basic calculator** to return to the standard calculator.
- ▶ Tap **Calculation history** to view your previous calculations.
- ▶ Tap **Settings** to access the Calculator settings.

## Calculator settings

Access the **Calculator** app, tap the **Menu key**  > **Settings**. You can set **Vibrate on touch**, **Brackets color**, **Operators color**, and **Answer color**.

## Calendar





### Adding an event to your calendar

1. From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Calendar** .
2. Tap the date  (in the upper-left corner of the screen) to select the type of calendar you want to view. Tap **Day**, **Week**, **Month**, **Year**, or **Agenda**.
3. Tap the date for which you want to add an event, then tap the **New** icon  (in the upper-right corner of the screen).
4. Enter the event name.
5. Check the date and enter the start and finish times for your event.
6. Tap each field and enter additional details, as necessary.
  - ▶ You can set **Location**, **All day** checkbox, **Time zone**, **Guests**, **Description**, **Repeat**, **Reminders**, **Show me as**, and **Privacy**.
7. Tap **Save** to save the event in the calendar.

**NOTE** Touch and hold a spot on the calendar to quickly save a calendar event on that date. Simply enter the event name and time, then tap **Save**. You can tap **Details** and enter more information, or update the event with additional details later.

## Tasks

The Tasks app can be synchronized with your MS Exchange account. You can create and manage your tasks using your phone or from MS Outlook or MS Office Outlook Web Access.

1. From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Tools** folder  > **Tasks** icon .
2. Tap the **Add task** icon  (in the upper-right corner of the screen).
3. Enter the **Subject**, **Due date**, **Description**, **Repeat**, and **Reminder**, as necessary.
4. Tap **Save** (at the bottom of the screen).



## Tasks options







Open the **Tasks** app, tap the **Menu key**  to access the following:


- ▶ **Sort by** – Tap to select **Due date**, **Priority**, or **Creation order**.
- ▶ **Delete** – Tap to select tasks to delete.
- ▶ **View completed tasks** – Tap to view your list of completed tasks.
- ▶ **Lists to display** – Tap to select which lists to display.
- ▶ **Settings** – Tap to change your Tasks settings including **Notifications**, **Notification sound**, **Vibrate**, **Pop-up notification**, and **Accounts**.

## 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**  > the **Apps** tab (if necessary) > **Tools** folder  > **Voice Recorder** .
2. Tap the **Record** button  to begin recording.
3. Tap the **Stop** button  to end the recording.
4. Tap the **Play** button  to listen to the recording.

**NOTE** Tap the **List** button  to access your list of recordings to manage or listen to your saved recording. The available recording time may differ from actual recording time.

**TIP** Tap the **Recording mode** icon  to toggle between **For general use** and **For message**.

## POLARIS Viewer 5

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

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

## Google+




Use the Google+ app to stay connected with people via Google's social network service.

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

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

## Voice Search




The Voice Search app allows you to search webpages using your voice instead of typing.

1. From the Home screen, tap **Apps**  > the **Apps** tab (if necessary) > **Google** folder  > **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 app may not be available depending on the region or service provider.

## Voice Command

The Voice Command app allows you to verbally activate phone functions.

1. From the Home screen, tap the **Apps**  > the **Apps** tab (if necessary) > **Tools** folder  > **Voice Command** .
2. Say the voice command you want to execute.
  - ▶ For example, the voice command "Call Home" will automatically dial the number stored in your "Home" Contacts entry.

## Downloads

Use the Downloads app to view and access the files you've downloaded through your various apps.

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

## Chrome

Use the **Chrome** app to search for information and browse webpages. Access and selections within this feature are dependent upon your service provider.

From the Home screen, tap **Chrome** .


### Viewing webpages

Tap the address field (at the top of the screen), enter a web address or search criteria, and tap **Go** on the keyboard.




**NOTE** You can also tap any of the search results that appear below the address bar.


### Opening a page

The **Chrome** app displays webpages in a tab format allowing you to open and browse several webpages simultaneously.


To open a new webpage tab, tap the Tabs icon  (in the upper-right corner of the screen) > **+ New tab** (in the upper-left corner of the screen).

When you create a new webpage tab, icons appear at the bottom of the screen help you to quickly open the page you want.

- ▶ **Most visited**  Displays snapshots of the webpages that you visit the most. Tap one to open it. Touch and hold a snapshot to access **Open in new tab**, **Open in incognito tab**, and **Remove**.
- ▶ **Bookmarks**  Displays icons for sites that you've bookmarked (tap the filepath above the displayed bookmarks, if necessary). Tap one to open it. Touch and hold the icon to access **Open in new tab**, **Open in incognito tab**, **Edit bookmark**, and **Delete bookmark**.
- ▶ **Other devices**  Displays Chrome tabs that are opened on your other devices. You must be signed into Chrome to sync your open tabs across devices. Tap one to open it on your phone.

To go to an open webpage, tap the Tabs icon  (in the upper-right corner of the screen), scroll up or down and tap the page to select and open it.


## Searching the web by voice

Tap the address field in the **Chrome** app, tap the Microphone icon  (on the right side of the address field), say a keyword, then tap one of the displayed results.



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


## Syncing with other devices

The **Chrome** app allows you to sync all of your open tabs and bookmarks when you're logged into the same Google Account on your phone and on the other devices.

To view open tabs on your other devices, open the **Chrome** app, tap the **Menu key**  > **Other devices**. Tap a webpage to open it.


## Bookmarks




To bookmark a webpage, open the page, tap the **Menu key** , then tap the **Favorite** icon  at the top of the Options menu. Edit the bookmark information (if necessary), then tap **Save**.

To view your bookmarks, open a new tab, then tap the **Bookmark** icon  at the bottom of the screen. Tap one to select and open it.

**NOTE** To find the bookmark you're looking for, you can tap the filepath (above the displayed bookmarks) to change the displayed bookmark folder.

## Chrome Options menu

Open the **Chrome** app, then tap the **Menu key**  to access its Options menu. Besides the options, there are three icons in a bar at the top of the menu.

- ▶  – Displays the previously accessed page.
- ▶  – Displays the page accessed before the Back icon was tapped.
- ▶  – Tap to bookmark the current page.
- ▶ **New tab** – Tap to create a new webpage tab.
- ▶ **New incognito tab** – Tap to create a new incognito tab.

- ▶ **Bookmarks** – Displays your bookmarked webpages.
- ▶ **Other devices** – Displays your open webpages on other devices.
- ▶ **History** – Displays your browsing data (webpages you've visited).
- ▶ **Print...** – Allows you to use the Cloud print function.
- ▶ **Find in page** – Allows you to search for text on the current webpage.
- ▶ **Request desktop site** – Checkmark to access the desktop site when you view webpages on your phone.
- ▶ **Settings** – Allows you to change the settings specific to the Chrome app.
- ▶ **Help** – Displays information about using the Chrome app on your phone.

## Access the Settings menu

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


OR

From the Home screen, tap the **Menu key**  > **Settings**.


2. Select a setting category and configure the desired settings.

## WIRELESS NETWORKS

### < Airplane mode >

**Airplane mode** – Tap the **Airplane mode** switch  to toggle the setting On or Off. **On** activates Airplane mode which disables all wireless connections.

### < Wi-Fi >

**Wi-Fi** – Tap the **Wi-Fi** switch  to toggle it On or Off. **On** turns on Wi-Fi to connect to available Wi-Fi networks. Tap **Wi-Fi** to access its settings:

**Show Wi-Fi pop-up** – Checkmark to be notified when a Wi-Fi network is in range when you launch an app.

## WI-FI NETWORKS

The list of all of the Wi-Fi networks that have been accessed. Tap one to connect to it.

**NOTE** Tap **Search** (at the bottom of the screen) to scan for available Wi-Fi networks.

Tap the **Menu key**  in the Wi-Fi menu to access the Wi-Fi Options menu:

**WPS Push Button:** Information to connect to a secured Wi-Fi network with a WPS button.

**WPS Pin Entry:** Information to connect to a secured Wi-Fi network with a WPS PIN.

**Add network:** Allows you to manually enter a new Wi-Fi network.

**Wi-Fi Direct:** Allows direct connection with Wi-Fi devices without any access point.

**Advanced Wi-Fi:** Accesses the following advanced Wi-Fi settings.

**Wi-Fi Notifications:** Checkmark to be notified of a changing Wi-Fi status.

**Internet unavailable:** Checkmark to disconnect Wi-Fi automatically when the Internet is unavailable.

**Sort list by:** Sets how the Wi-Fi list is displayed. Choose **Signal strength** or **Alphabetical order**.

**Manage networks:** Opens a screen to specify the order in which the available networks will be detected.

**Keep Wi-Fi on during sleep:** Sets the Wi-Fi status during sleep. Choose from **Always**, **Only when plugged in**, and **Keep Wi-Fi off (due to data usage)**.

**Scanning always available:** Checkmark to allow Google's location service (and other apps) scan for networks even when Wi-Fi is off.

**Wi-Fi signal weak:** Checkmark to disconnect Wi-Fi automatically when the Wi-Fi signal is weak.

**Battery saving for Wi-Fi:** Checkmark to minimize battery usage when Wi-Fi is on.

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

**MAC address:** Displays the MAC address.

**IP address:** Displays the IP address.


**Help:** Displays some useful tips for the Wi-Fi function.

**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.

To find the MAC address access, the Wi-Fi settings and tap the **Menu key**  > **Advanced Wi-Fi** > **MAC address**.

## < Bluetooth >

**Bluetooth** – Tap the **Bluetooth** switch  to toggle it On or Off. **On** allows you to pair and connect to other Bluetooth devices. Tap **Bluetooth** to access its settings:

**VS450PP** – Checkmark to allow other Bluetooth devices to see your phone for pairing and connection. If you change the device name, the new name will appear in this option.

## AVAILABLE DEVICES

The list of all of the available in-range Bluetooth devices.

**NOTE** Tap **Search for devices** (at the bottom of the screen) to search for in-range Bluetooth devices.

Tap the **Menu key**  in the Bluetooth menu to access the Bluetooth Options menu.


**Edit phone name:** Changes your phone name for easy identification when pairing and connecting. Enter your new phone name, then tap **Save**.

**Visibility timeout:** Sets the amount of time other Bluetooth devices can see your phone for pairing and connection. Choose from **2 minutes**, **5 minutes**, **1 hour**, and **Never time out**.

**Show received files:** Displays a list of your Bluetooth received files.

**Help:** Displays information about Bluetooth features.

## < Mobile data >

**Mobile data** – Tap the **Mobile data** switch  to toggle it On or Off. **Off** disconnects you from the mobile network and you won't be able to use the Internet unless you use a Wi-Fi connection. Tap **Mobile data** to manage your mobile data usage.

**Limit mobile data usage** – Your mobile data connection will be turned off when your data usage reaches the limit you set in the data usage graph.

**Alert me about data usage** – Your phone will alert you when your mobile data usage reaches the warning amount you set in the data usage graph.



**Data usage cycle** – Displays your current usage cycle. Tap it to change the cycle date.

**Data usage graph** – Displays your usage on a graph.

**Data usage apps** – Apps are displayed with their data usage on a bar graph. Tap one to see more detailed information.

Tap the **Menu key**  to access the Mobile data Options menu.

**Data roaming** – Checkmark to allow you to use data connections when you're roaming.

**Restrict background data** – Checkmark to disable sync in the background while using a mobile network.

**Auto-sync data** – Checkmark to set the device to sync contact, calendar, email, bookmark, and social network data automatically.

**Show Wi-Fi usage** – Checkmark to view your data usage via Wi-Fi.

**Mobile hotspots** – Displays a list to select and use another device's mobile network.

**Help** – Displays data usage information.

**Display in MB/GB** – Toggles between displaying data usage in MB or GB.

## < Call >

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


## 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**.


**Assisted dialing** – Configures dialing options when you're traveling outside of your home country.

## INCOMING CALL

**Incoming voice call pop-up** – Checkmark to display an incoming call pop-up when using the Camera and Videos apps.

**Allow ignore with message** – Checkmark so that you can send a quick message instead of answering an incoming call. This is useful if you need to reject a call during a meeting. Tap the **Settings** icon  to set your message choices.

**Privacy keeper** – Sets the caller information displayed for an incoming call. Choose from **Hide all info.**, **Show number only**, and **Show caller info**.

**Home button answers call** – Checkmark so that pressing the **Home key**  will answer an incoming call.

**Call forwarding** – Turn on or Turn off call forwarding.

**Auto answer** – Enables or disables Auto answer with a handsfree device. Choose from **Off**, **1 second**, **3 seconds**, and **5 seconds**.

## OUTGOING CALL


**Show dialpad** – Sets which types of calls will automatically display the dialpad. Choose from **Voicemail/Toll-Free**, **All calls**, and **Customized number**.

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

**Hearing aids** – Checkmark to turn on hearing aid compatibility.

**Voice privacy** – Checkmark to enable enhanced privacy mode.


## END CALL

**Power button ends call** – Checkmark to allow you to end voice calls by pressing the **Power/Lock key**  (on the right side of the phone).

## OTHERS

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


## < Wireless storage >

Allows you to share files with your phone and computer. Tap the switch  in the top right corner of the screen to toggle it On, connect to a network, then select the devices to allow connection.

## < More... >

### TETHERING


Tethering allows you to connect other devices to your phone's internet connection. Select your connection method.

**Mobile Hotspot** – Tap the **Mobile Hotspot** switch  to toggle it On or Off. On allows you to use your phone as a Mobile Hotspot for other devices to use your mobile network connection. Tap **Mobile Hotspot** to access its settings:

**Configure:** Sets the SSID and key for your mobile hotspot.

**Manage device:** Sets the device(s) allowed to use your hotspot connection.

**CONNECTED DEVICES:** Displays devices using your mobile hotspot connection.

**NOTE** From the Mobile Hotspot setting, tap the **Menu key** , then tap **Advanced** to access additional settings including **DHCP server**, **DHCP server settings**, and **Power Management**.

### NETWORK

**Mobile networks** – Configures your mobile network settings including enabling mobile data, data roaming access, cdma roaming mode, network type and strength, and roaming state.


**Default message app** – Sets the default messaging app. Choose from **Messaging** and **Hangouts**.

**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 pattern, PIN, or password before you can use credential storage.

**Basic VPN** – Sets your phone to use the built-in Android VPN client supporting basic features.

**LG VPN** – Sets your phone to use an advanced LG VPN client supporting full IP Security features and interoperability. You can add an LG VPN network or select from your list of VPN connections.

**NOTE** From the LG VPN setting, tap the **Menu key**  to access **Settings**, **Import certificates**, **Delete all**, and **About**.


## DEVICE

### < Sound >

#### SOUND PROFILE

**Silent mode** – Sets the Silent mode to **Off**, **Vibrate**, or **On**.

**Volumes** – Sets individual volume levels for phone **Ringtone**, **Notifications**, **Touch feedback & system**, and **Music, video, games & other media**.

**Quiet mode** – Sets up your Quiet mode. Tap the **Turn Quiet mode on now** switch  to toggle it On or Off. You can schedule Quiet mode to activate automatically and designate exceptions to your Quiet mode.

**Schedule settings** – Tap the switch to toggle it On or Off. You can also set the days and times to automatically turn Quiet mode on.

#### Allowed calls

**Block incoming calls** – Checkmark to block all incoming calls.

**Repeat call** – Checkmark to allow a call that is repeated within 3 minutes.

**Allowed contacts** – Designate which Contacts calls will be allowed.

**Auto reply to silenced calls** – Sets how to you want to automatically reply to silenced calls.


#### RINGTONES & VIBRATIONS

**Phone ringtone** – Sets your incoming call ringtone.

**Ringtone with vibration** – Checkmark to set the phone to vibrate in addition to the ringtone when you receive calls.

**Incoming call vibration** – Sets your incoming call vibration options. Choose from **Long Lasting**, **Rapid**, **Short repeated**, **Standard**, and **Ticktock**.

## SYSTEM

**Voice notifications** – Tap the **Voice notifications** switch  to toggle it On or Off. On allows your phone to read out incoming call and message events automatically.

**Notification sound** – Sets your notification sound.

**Touch feedback & system** – Sets the feedback (tones and/or vibration) while using your phone.

**Dial pad touch tones** – Checkmark to play tones when tapped.

**Touch sounds** – Checkmark to play a tone when the screen is tapped.

**Screen lock sound** – Checkmark to play a tone when the screen is locked/unlocked.

**Sound when roaming** – Checkmark to play a tone when you're roaming.

**Emergency tone** – Sets how to play emergency tones. Choose from **Off**, **Alert**, and **Vibrate**.

**Vibrate on touch** – Checkmark to vibrate when keys are tapped.

## < Display >


## SCREEN

**Brightness** – Adjusts the screen brightness. Checkmark **Night brightness** to set brightness at 0% automatically between 12:00 AM and 06:00 AM. For the best battery performance, use the dimmest comfortable brightness.

**Screen timeout** – Sets the amount of time before the screen turns off.

**Screen-off effect** – Sets the effect used when the screen turns off. Choose from **Fade out**, **Black hole**, and **Retro TV**.

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


**Daydream** – Tap the **Daydream** switch  to toggle it On or Off. On allows the set screensaver to be displayed when the phone is sleeping while docked and/or charging. Choose from **Clock** and **Google Photos**.

## FONT

**Font type** – Changes the display font type.

**Font size** – Changes the size of the display font.

## ADVANCED SETTINGS

**Notification light** – Tap the **Notification light** switch  to toggle it On or Off. On activates the LED brightness setting and how the **Home key** light illuminates for notifications.

## < Home screen >

## SCREEN

**Theme** – Sets the screen theme for your phone. Choose from **LG**, **Biz**, and **Marshmallow**.

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

**Allow apps list looping** – Checkmark to set the apps list to scroll continuously, eliminating the need to scroll back in the opposite direction when you reach either end.

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

## TIPS

**Help** – Displays some useful tips for the Home screen.

## < Lock screen >


### SCREEN SECURITY

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

**Screen swipe effect** – Sets the effect when you swipe to change screens.

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

**Shortcuts** – Changes the shortcuts on the Swipe lock screen.

**Owner info** – Checkmark to display the owner info on the lock screen in case your phone is lost. Tap the **Settings** icon  to enter the information to display.

### LOCK TIME

**Security lock timer** – Sets the amount of time before the screen automatically locks after the screen has timed-out.

**Power button instantly locks** – Checkmark to immediately lock the screen when the Power/Lock key is pressed. This setting overrides the Security lock timer setting.

## < Gestures >

### Gestures

**KnockON** – Checkmark to enable KnockON to turn the screen on and off. Quickly double-tap center screen to turn it on. Double-tap the Status Bar, an empty area on the Home screen, or the Lock screen to turn the screen off. For the best results, do not move the phone while using the KnockON feature.

**Silence incoming calls** – Checkmark to enable you to simply turn the phone over to silence incoming calls.

**Snooze or turn off alarm** – Checkmark to enable you to simply turn the phone over to snooze or stop the alarm.

**Pause video** – Checkmark to enable you to simply turn the phone over to pause the video playback.

**Help** – Displays information on using the Gesture functions of your phone.

## **SENSOR**

**Motion sensor calibration** – Allows you to improve the accuracy of the tilt and speed of the sensor.

## **< Storage >**

**INTERNAL STORAGE** – Displays the total amount of space in the phone's memory. It's listed in Gigabytes and also on a colored bar graph with a color-coordinated list of all of the apps as well as the amount of memory they use. Remaining memory space is gray-colored.

**SD CARD** – Displays the total available microSD card space.

**Unmount SD card** – Releases the microSD card from phone use to safely remove it.

**Mount SD card** – Enables the phone to recognize the microSD card for use in the phone.

**Erase SD card** – Deletes all of the data stored on the microSD 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 apps 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 **Battery saver** switch  to toggle it On or Off. Tap **Battery saver** to access its settings.

### TURN BATTERY SAVER ON

**Turn Battery saver on** – Sets the phone to automatically turn Battery saver on when the battery charge gets to a certain battery level. Choose from **Immediately**, **10% battery**, **20% battery**, **30% battery**, and **50% battery**.


### BATTERY SAVING ITEMS


**Auto-sync** – Checkmark to turn off Auto-sync when Battery saver is activated.

**Wi-Fi** – Checkmark to turn off Wi-Fi if data is not in use when Battery saver is activated.

**Bluetooth** – Checkmark to turn off Bluetooth if it's not connected to a device when Battery saver is activated.

**Vibrate on touch** – Checkmark to turn off touch feedback when Battery saver is activated.

**Brightness** – Checkmark to adjust the screen brightness when Battery saver is activated. Tap the **Settings** icon  to set the brightness level.

**Screen timeout** – Checkmark to adjust the screen timeout when Battery saver is activated. Tap the **Settings** icon  to set the time.

**Notification light** – Checkmark to turn off the Home key LED.

**Help** – Displays more information about battery saving items.

## < Application manager >

Use the **Application manager** to view details about the apps installed on your phone, manage their data, and force them to stop.

Swipe left and right to view 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.

## PERSONAL

### < Guest mode >

Use Guest mode when you let someone else use your phone. They will only be able to use the apps that you've selected. Once you set it up, you can easily change between normal and guest mode. On the Lock screen, draw the guest pattern that you set, which is different from your normal unlock pattern. Tap **Help** for more information.

**NOTE** To use Guest mode, set the Lock screen to pattern lock. Guests may also use apps not pre-selected but linked to pre-selected apps.

### < Location >

**E911 Location** – Used for emergency services.

#### 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

Displays apps that have recently requested your location information.

## LOCATION SERVICES

**Google Location Reporting** – Allows you to view your Google location settings.

## < 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.

**Encrypt SD card storage** – Allows you to encrypt the microSD 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** – Checkmark to show the last character of the hidden password as you type.

### PHONE ADMINISTRATION

**Phone administrators** – Displays the list of administrators, allowing you to deactivate phone administrators.

**Unknown sources** – Checkmark to allow installation of non-Play Store apps.

**Verify apps** – Checkmark to disallow or warn before installation of apps that may cause harm.

### CREDENTIAL STORAGE

**Trusted credentials** – Displays trusted CA certificates.

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

**Clear credentials** – Removes all secure certificates and related credentials.


## < Language & input >

**Language** – Sets the language to use on your phone.

**Personal dictionary** – Displays a list of the personal words that you've added that aren't in the standard dictionaries.

## KEYBOARD & INPUT METHODS

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

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

**Input language and type** – Sets the keyboard language and characters.

**Word suggestion** – Checkmark to enable auto word correction and allow you to clear the suggestion history (remove words that are suggested after every word entry).

**Auto capitalization** – 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.

**Path input** – Checkmark to enter text by drawing a path through all of the letters.

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

**Additional settings** – Sets the following options: **Keyboard Theme**, **Vibrate on keypress**, **Sound on keypress**, and **Preview on keypress**.

**Help** – Displays information about the LG Keyboard.

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

**Choose input languages** – Allows you to choose the input language. To change the input method, remove the checkmark from Automatic.

**Block offensive words** – Checkmark to hide recognized offensive text.

## SPEECH

**Voice Search** – Sets the following options: **Language**, **Speech output**, **Block offensive words**, **Personalized recognition**, **Google Account dashboard**, 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 increase or decrease it.

## < Backup & reset >

### BACKUP & RESTORE

**Back up my data** – Checkmark to backup your app data, Wi-Fi passwords, and other settings to Google servers.

**Backup account** – Designates the account to which you want to backup your data.

**Automatic restore** – Checkmark to restore backed up settings and data when an app is reinstalled.

### LG BACKUP

**LG Backup service** – Backup, scheduled backup, restore and quick data transfer are available. Tap **Menu key**  **Help** for more information.

### PERSONAL DATA

**Factory data reset** – Resets your phone to the factory default settings and deletes all of your data.

**Reset settings** – Resets all of your phone system settings back to their default values.

## ACCOUNTS

### < Add account >

Allows you to add new email, Google, Microsoft Exchange, and accounts for any other applications and services you have installed.

## SYSTEM

### < Date & time >

Use this menu to adjust the time and date settings for your device.

**Automatic date & time** – Checkmark to use the network-provided date and time.

**Automatic time zone** – Checkmark to use the network-provided time zone.

**Set date** – Tap to manually set the date to use for your phone. This setting is greyed-out when the Automatic date & time setting is checkmarked.

**Set time** – Tap to manually set the time to use for your phone. This setting is greyed-out when the Automatic date & time setting is checkmarked.

**Select time zone** – Tap to select a time zone other than the one provided by the network. This setting is greyed-out when the Automatic time zone setting is checkmarked.


**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.

## VISION

**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.

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

**Touch zoom** – Tap the **Touch zoom** switch  to toggle it On or Off. **On** allows you to zoom in and out by triple-tapping the screen.

**Screen shades** – Checkmark to set the screen to a darker contrast (dims the backlight).


**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.

## HEARING




**Audio type** – Sets the audio route. Choose **Mono** or **Stereo**.

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

**Captions** – Tap the **Captions** switch  to toggle it On or Off. On sets your phone to use captions in available apps. Adjust the **Language**, **Text size**, and **Caption style**.

## PHYSICAL AND MOTOR


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


**Universal touch** – Tap the **Universal touch** switch  to toggle it On or Off. On allows you to replace the hardware keys with a **Universal touch board** . Tap the **Universal touch icon**  to be able to tap its **Volume** buttons, **Power** button, **Home** button, and **Pinch** button. Draw a "C" ("call") on the board to automatically display the Dial tab. Draw an "M" on the board to automatically display the Messaging app. Draw a "W" ("web") on the board to automatically launch the Chrome app.

## SYSTEM

**Auto-rotate screen** – Checkmark to allow the phone to rotate the screen depending on its orientation (portrait or landscape).

**Read passwords** – Checkmark to have verbal confirmation when inputting passwords.

**Power key ends call** – Checkmark so that you can end voice calls by pressing the **Power/Lock key**  (on the right side of the phone).

**Accessibility settings shortcut** – Sets quick, easy access to selected features when you press the **Home key**  3 times. Choose from **Off**, **Show all**, **TalkBack**, **Universal touch**, and **Accessibility settings**.

## SERVICES

List of installed accessibility services.


### < PC connection >



**Select USB connection method** – Sets the default mode used when connecting the phone to a PC via a USB Cable. Choose from **Charge phone**, **Media sync (MTP)**, **Internet connection**, and **Camera (PTP)**.

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

**Help** – Displays connection settings information.

### < Accessory >


**QuickWindow case** – Tap the switch  to toggle it On or Off. On allows you to use selected phone functions in the case's window without opening the case. Tap QuickWindow case to set the functions you want to make available or view help information.

**Earphone Plug & Pop** – Tap the switch  to toggle it On or Off. On will automatically display the app panel when an earphone is connected. Checkmark the apps you want to make available. Drag  to rearrange the order.



## < Printing >

### PRINT SERVICES

**Cloud Print** – Allows you to access your cloud print services. Tap the **Cloud print** switch  to toggle it On or Off.

## < About phone >

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

**Phone name** – Allows you to change your phone name. This will be your phone name for Bluetooth, Wi-Fi Direct, etc.

**Network** – Displays your phone's Network, Network type and strength, Service state, Roaming state, Mobile network state, and IP address.

**Status** – Displays your phone number, MEID, PRL Version, ERI version, Rooting status, and Last factory data reset.

**Battery** – Displays your phone's Battery status, Battery level, and Battery use information.

**Hardware information** – Displays your phone's Model number, Hardware version, Up time, Lifetime calls, Warranty Date Code, Wi-Fi MAC address, and Bluetooth address.

**Software information** – Displays your phone's Android version, Baseband version, Kernel version, Build number, and Software version.

**Legal information** – Displays the Open source licenses and Google legal information.

**Patent information** – Displays LG patent information.


## < System updates >

Displays your phone's current version information and allows you to check updates for apps and software provided by LG Electronics.

## 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 a USB Cable.


**NOTE** Firmware is a specialized type of software embedded into your phone's hardware which allows it to run correctly (e.g., functions, speed, communication, etc.) and determines how it stores bits of information. The firmware on your phone comes from LG and is written specifically for it. On the other hand, software can come from a variety of sources and can be used on various compatible devices. For more information on firmware and software updates, please visit: <http://www.lg.com>


1. From the Home screen, tap the **Menu key**  > **Settings** > **System updates**.
2. The current version is displayed. Tap your desired option.
  - ▶ **Check for new system update** – Checks for any new software updates and conducts the update.
  - ▶ **Check system update status** – Displays the System update history.



**NOTES**








- 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 phone models.




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




Category Sub-Category	Question	Answer
<b>Bluetooth</b> Bluetooth Devices	What are the functions available via Bluetooth?	You can connect Bluetooth audio devices such as a Stereo/Mono headset or Car Kit. You can also connect with compatible Bluetooth devices using the Gallery and Contacts apps to share pictures, videos, contacts, etc. Also when an FTP server is connected to a compatible device, you can share contents stored in the phone's memory or in the microSD card.
<b>Data</b> Contacts Backup	How can I back up Contacts?	The Contacts data can be synchronized between your phone and Gmail™.
<b>Data</b> Synchronization	Is it possible to set up one-way sync with Gmail?	Only two-way synchronization is available.
<b>Data</b> Synchronization	Is it possible to synchronize all of the Email folders?	The Inbox is automatically synchronized. You can view other folders by tapping the <b>Menu key</b>  , then tapping <b>Folders</b> to choose a different folder.
<b>Google™ Service</b> Gmail Log-In	Should I have to log into Gmail whenever I want to access Gmail?	Once you log in to Gmail, you don't need to log in again.
<b>Google Service</b> Google Account	Is it possible to filter emails?	No, email filtering is not supported via the phone.
<b>Phone Function</b> YouTube™	Is it possible to play YouTube videos?	Yes, YouTube videos are supported but may have to be viewed through the YouTube app (and not through the Chrome app).

Category Sub-Category	Question	Answer
Phone Function Email	What happens when I execute another app 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 an MP3 file as a ringtone?	There is no file size limitation.
Phone Function Receiving Messages	My phone won't receive messages anymore. How can I fix this?	<p>Your phone can't receive new messages when there is less than 10MB of space available in the phone's memory. Check your phone memory and delete some data (such as messages, pictures, or downloaded apps) to free up some space.</p> <p><b>To check your phone memory:</b> From the Home screen, tap the <b>Menu</b> key  &gt; <b>Settings</b> &gt; <b>Storage</b>.</p>
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"> <li>1. Open the message thread that contains the message you want to check.</li> <li>2. Touch and hold the message. Tap <b>View message details</b> in the Context menu that appears.</li> </ol>
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 app on my phone?	Any app that is available on Play Store and is compatible with the hardware can be installed and used.


Category Sub-Category	Question	Answer
Phone Function Synchronization	Is it possible to synchronize my contacts from all of my email accounts?	Only Gmail and MS Exchange server (Company Email Server) contacts can be synchronized.
Phone Function Wait and Pause	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, they won't work. You'll need to re-save each number.</p> <p><b>How to re-save with Wait and Pause:</b></p> <ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Phone icon</b> .</li> <li>2. Enter the number, then tap the <b>Menu key</b> .</li> <li>3. Tap <b>Add 2-sec pause</b> or <b>Add wait</b>, then continue entering the numbers and save it.</li> </ol>
Phone Function Security	What are the phone's security functions?	You're able to set the phone to require the entry of a screen unlock sequence (pattern, PIN, or password) before the phone can be accessed or used.
Phone Function Unlock Pattern	What should I do if I forget my Unlock Pattern?	After 5 unsuccessful attempts, you can tap <b>Forgot Pattern?</b> at the bottom of the screen and use your Google Account information or Backup PIN to unlock your phone.

Category Sub-Category	Question	Answer
Phone Function Unlock Pattern	What should I do if I forgot the Unlock Pattern and I didn't create a Google Account on the phone?	<p>Without entering the Unlock Pattern, you won't be able to access your phone.</p> <p><b>Caution: If you perform a factory reset, all user apps and user data will be deleted. Please remember to back up any important data before performing a factory reset.</b></p> <p><b>How to perform a factory reset:</b></p> <ol style="list-style-type: none"> <li>1. Turn the phone off.</li> <li>2. Press and hold the <b>Power/Lock key</b>  (on the right side of the phone) and the <b>Down Volume key</b>  (on the left side of the phone) at the same time.</li> <li>3. When the <b>Factory data reset</b> screen appears, release both of the keys.</li> <li>4. Use the <b>Volume keys</b>  to highlight <b>Factory data reset</b>, then press the <b>Power/Lock key</b>  to confirm.</li> <li>5. Use the <b>Volume keys</b>  to highlight <b>Yes</b>, then press the <b>Power/Lock key</b>  to confirm one more time.</li> <li>6. Your phone will perform a factory reset which deletes all of the personal data in the phone.</li> </ol>
Phone Function Unlock Pattern	How do I create an Unlock Pattern?	<ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Menu key</b> .</li> <li>2. Tap <b>Lock screen settings &gt; Select screen lock &gt; Pattern</b>. The first time you do this, a short tutorial about creating a pattern appears.</li> <li>3. Set it up by drawing your pattern once, then again for confirmation.</li> </ol>
Phone Function Memory	Will I know when my memory is full?	Yes, you'll receive a notification.

Category Sub-Category	Question	Answer
Phone Function Language Support	Is it possible to change the language?	<p>The phone has bilingual capabilities.</p> <p><b>To change the language:</b></p> <ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Menu key</b> , then tap <b>Settings</b>.</li> <li>2. Tap <b>Language &amp; input &gt; Language</b>.</li> <li>3. Tap the language you want to use.</li> </ol>
Phone Function VPN	How do I set up a VPN?	<p>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.</p>
Phone Function Screen timeout	My screen turns off after only 15 seconds. How can I change the amount of time before the backlight turns off?	<ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Menu key</b>  &gt; <b>Settings &gt; Display &gt; Screen timeout</b>.</li> <li>2. Tap the preferred screen backlight timeout time.</li> </ol>
Phone Function Audible tap tones	When I dial a number, the phone plays tones. How do I turn this off?	<ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Menu key</b>  &gt; <b>Settings &gt; Sound &gt; Touch feedback &amp; system</b>.</li> <li>2. Tap <b>Dial pad touch tones</b> to remove the checkmark and disable the function.</li> </ol>
Phone Function Wi-Fi and 3G	When Wi-Fi and 3G are both available, which service will my phone use?	<p>When using data, your phone may default to the Wi-Fi connection (if Wi-Fi connectivity on your phone is set to On). However, there will be no notification when your phone switches from one to the other.</p> <p>To know which data connection is being used, view the 3G or Wi-Fi icon in the Status Bar (at the top of your screen).</p>

Category Sub-Category	Question	Answer
Phone Function Home screen	Is it possible to remove an app from the Home screen?	Yes. 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 and lift your finger.
Phone Function Application	I downloaded an app and it causes a lot of errors. How do I remove it?	<ol style="list-style-type: none"> <li>1. From the Home screen, tap the <b>Menu key</b>  &gt; <b>Settings</b> &gt; <b>Application manager</b>.</li> <li>2. Scroll to the <b>Downloaded</b> apps tab, then tap the app to uninstall.</li> <li>3. Tap <b>Uninstall</b> and <b>OK</b> to confirm.</li> </ol>
Phone Function Charging	Is it possible to charge my phone using the USB Cable without installing the necessary USB driver?	Yes, the USB Cable will allow the battery to be charged by your PC whether or not the necessary drivers have been installed on the PC.
Phone Function Ringtones	Can I use music files for my ringtone?	<p>Yes. After saving a music file you can use it for your ringtone.</p> <p>Touch and hold a song in a library list. Tap <b>Set as ringtone</b> in the Context menu that appears.</p>
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?	From the <b>Alarm</b> tab in the <b>Alarm/Clock</b> app, tap the <b>Menu key</b>  > <b>Settings</b> . Checkmark <b>Alarm in silent mode</b> .
Phone Spec Band	Which wireless bands are supported by the phone?	Your phone is able to operate on the 800MHz and 1900MHz bands.
Recovery Solution Screen Freeze	My screen isn't responding. How do I unfreeze it?	Press and hold the <b>Power/Lock key</b>  (on the right side of the phone) for 10 seconds. Your phone will turn off and restart itself.



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

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

## **HAC**

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

Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. Use only the supplied antenna.

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

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

## **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.

## Bodily Contact During Operation

This device was tested for typical use with the back of the phone kept 0.39 inches (1.0 cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1.0 cm) must be maintained between the user's body and the back of the phone.

Third-party belt-clips, holsters, and similar accessories containing metallic components may not be used. Avoid the use of accessories that cannot maintain 0.39 inches (1.0 cm) distance between the user's body and the back of the phone and have not been tested for compliance with FCC RF exposure limits.

## FCC Notice and Cautions

This device and its accessories comply with part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device and its accessories may not cause harmful interference, and (2) this device and its accessories must accept any interference received, including interference that causes undesired operation.

Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. Use only the supplied antenna. Use of unauthorized antennas (or modifications to the antenna) could impair call quality, damage the phone, void your warranty and/or violate FCC regulations.

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

### Part 15.19 statement

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

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

**Part 15.21 statement**

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

**Part 15.105 statement**

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

## **Consumer Information About Radio Frequency Emissions**

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

**Are wireless phones safe?**

Scientific research on the subject of wireless phones and radio frequency ("RF") energy has been conducted worldwide for many years, and

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

### **What does "SAR" mean?**

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

Although the SAR is determined at the highest power level, the actual SAR value of a wireless phone while operating can be less than the reported

SAR value. This is because the SAR value may vary from call to call, depending on factors such as proximity to a cell site, the proximity of the phone to the body while in use, and the use of hands-free devices. For more information about SARs, see the FCC's OET Bulletins 56 and 65 at [http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins) or visit the Cellular Telecommunications Industry Association website at [http://www.ctia.org/consumer\\_info/index.cfm/AID/10371](http://www.ctia.org/consumer_info/index.cfm/AID/10371). You may also wish to contact the manufacturer of your phone.

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

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

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

The FDA/FCC website states that "the scientific evidence does not show a danger to users of wireless communication devices, including children." The FDA/FCC website further states that "some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all". For example, the Stewart Report from the United Kingdom ["UK"] made such a recommendation in December 2000. In this report a group of independent experts noted that no evidence exists

that using a cell phone causes brain tumors or other ill effects. [The UK's] recommendation to limit cell phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists. A copy of the UK's leaflet is available at <http://www.dh.gov.uk> (search "mobile"), or you can write to: NRPB, Chilton, Didcot, Oxon OX11 0RQ, United Kingdom. Copies of the UK's annual reports on mobile phones and RF are available online at [www.iegmp.org.uk](http://www.iegmp.org.uk) and <http://www.hpa.org.uk/radiation/> (search "mobile"). Parents who wish to reduce their children's RF exposure may choose to restrict their children's wireless phone use.

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

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

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

FDA Consumer magazine November-December 2000

Telephone: (888) INFO-FDA

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

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

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

Telephone: (888) 225-5322

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

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

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

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

283 Sparks Street Ottawa, Ontario K1R 7X9 Canada

Telephone: (613) 991-6990

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

**World Health Organization**

Avenue Appia 20 1211 Geneva 27 Switzerland

Telephone: 011 41 22 791 21 11

<http://www.who.int/mediacentre/factsheets/fs193/en/>

**International Commission on Non-Ionizing Radiation Protection**

c/o Bundesamt für Strahlenschutz Ingolstaedter Landstr. 1 85764  
Oberschleissheim Germany

Telephone: 011 49 1888 333 2156

<http://www.icnirp.de>

**American National Standards Institute**

1819 L Street, N.W., 6th Floor Washington, D.C. 20036 Telephone: (202)  
293-8020

<http://www.ansi.org>

**National Council on Radiation Protection and Measurements**

7910 Woodmont Avenue, Suite 800 Bethesda, MD 20814-3095

Telephone: (301) 657-2652

<http://www.ncrponline.org>

**Engineering in Medicine and Biology Society, Committee on Man and  
Radiation (COMAR) of the Institute of Electrical and Electronics Engineers**

<http://ewh.ieee.org/soc/embs/comar/>

## **Consumer Information on SAR**

**(Specific Absorption Rate)**

This model phone meets the government's requirements for exposure to radio waves. Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to Radio Frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of



comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you're 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 model phone when tested for use at the ear is 1.14 W/kg and when worn on the body, as described in this user guide, is 1.20 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 ZNFVS450PP. Additional information on Specific Absorption Rates (SAR) can be found on the

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

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

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

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

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

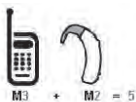
The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

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

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

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

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



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

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

When you’re talking over the cell phone, it’s recommended you’d turn the BT (Bluetooth) or WLAN mode off for HAC.

#### FCC Hearing Aid Compatibility and Volume Control

[http://www.fcc.gov/cgb/consumerfacts/hac\\_wireless.html](http://www.fcc.gov/cgb/consumerfacts/hac_wireless.html)

## **Caution:**

### **Avoid potential hearing loss.**

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

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

- Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you're 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 concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary

hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

## TIA Safety Information

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

### Exposure to Radio Frequency Signal

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

In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones.

Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992) \*

NCRP Report 86 (1986)

ICNIRP (1996)

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

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

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

### Antenna Care

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

## **Phone Operation**

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

## **Tips on Efficient Operation**

For your phone to operate most efficiently:

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

## **Electronic Devices**

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

## **Pacemakers**

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

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

## **Hearing Aids**

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

## **Other Medical Devices**

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

## **Health Care Facilities**

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

## **Vehicles**

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

## **Posted Facilities**

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

## **Aircraft**

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

## **Blasting Areas**

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

## **Potentially Explosive Atmosphere**

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

Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage

facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

### **For Vehicles Equipped with an Air Bag**

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

## **Safety Information**

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

### **Caution**

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

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard. Such conditions may present the risk of fire or explosion.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been approved and qualified with the system per IEEE-Std-1725-2006. Use of an unqualified and non-approved battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Replace the battery only with another battery that has been approved and qualified with the system per this standard, IEEE-Std-1725-2006. Use of



an unqualified and non-approved battery may present a risk of fire, explosion, leakage or other hazard.

- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the phone, battery or exposing the phone or battery to a liquid. If the phone or battery is dropped, especially on a hard surface, or is exposed to a liquid or comes into contact with a sharp object take it to a service center for inspection.
- At least, one of the Authentication methods may be implemented. (e.g. H/W, S/W, Mechanical, Hologram, etc.)
- Improper battery use may result in a fire, explosion or other hazard.

### **Charger and Adapter Safety**

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

### **Battery Information and Care**

- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- Please read the manual of proper installation and removal of the battery.
- Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
- Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your

phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.

- Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- Please use only an approved charging accessory to charge your LG phone. Improper handling of the charging port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.
- Charging temperature range is regulated between 32°F (0°C) and 113°F (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 a protection circuit to prevent danger. Do not use anywhere near a place that generates static electricity more than 100V which could damage the protection circuit. If the protection circuit were to be broken, the battery could potentially smoke, rupture or flame.
- When there is rust on the battery or if it gives off a bad or unusual odor the first time you use it, do not use the equipment and bring the battery to the shop where it was purchased.
- If your skin or clothing comes into contact with liquid from the battery, wash your skin or clothing off with water, as the liquid may cause skin inflammation. Remove the battery from the device and do not use it.
- Do not handle the phone with wet hands while charging. It may cause an electric shock or seriously damage your phone.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.

- The charger and adapter are intended for indoor use only.
- Insert the battery pack charger vertically into the wall power socket.
- Talking on your phone for an extended period of time may reduce call quality due to heat generated during use.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone as this could cause a fire.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.
- 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) and may damage the battery and cause an explosion.
- Never use an unapproved battery since this could potentially damage the phone and/or battery and cause the battery to explode. Only use the batteries and chargers provided by LG. The warranty will not be applied to products provided by other suppliers. Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.

### **Explosion, Shock, and Fire Hazards**

- Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty.
- When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire.
- If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip, or pen) may short-circuit the phone and may cause an explosion. Always cover the receptacle when not in use.
- Don't short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag or contact with sharp objects including animal

bites may short-circuit the + and – terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

### **General Notice**

- Using a damaged battery or placing a battery in your mouth or animal's mouth may cause serious injury including a fire or explosion.
- Do not place items containing magnetic components such as a credit card, phone card, bank book, or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.
- Do not immerse your phone in water, liquid, or expose to high humidity. If this happens, turn it off immediately and remove the battery. Immediately, take it to an LG Authorized Service Center.
- Do not paint your phone.
- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ringtones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ringtone to vibration so you don't disturb others.

- Do not turn your phone on or off when putting it to your ear.
- Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely and do not touch the antenna unnecessarily.

## FDA Consumer Update



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

### 1. Do wireless phones pose a health hazard?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research And Development Agreement



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

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

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

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

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the Radio Frequency (RF) energy exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, "Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques", sets forth the first

consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

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

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

### **10. What about children using wireless phones?**

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to Radio Frequency (RF) energy, the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

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

### **11. What about wireless phone interference with medical equipment?**

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

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

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

### **12. Where can I find additional information?**

For additional information, please refer to the following resources:

FDA web page on wireless phones  
(<http://www.fda.gov/cellphones/>)

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

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

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

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

## **Driving**

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

- Give full attention to driving – driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions or the law require it.

## **10 Driver Safety Tips**

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

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

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and

memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you're speaking with know you're driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Don't take notes or look up phone numbers while driving. If you're reading an address book or business card, or writing a "to-do" list while driving a car, you're not watching where you're going. It is common sense. Do not get caught in a dangerous situation because you're 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're 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're behind the wheel of a car. Make people you're talking with aware you're driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations – with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard, or medical emergency. Remember, it's a free call on your wireless phone!
9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.
10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

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

## Cautions

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

**1. WHAT THIS WARRANTY COVERS:**

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

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

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

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



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

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

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

### **4. STATE LAW RIGHTS:**

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

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

## **5. HOW TO GET WARRANTY SERVICE:**

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

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

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

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

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

## **DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.**

Please call or write for the location of the LG authorized service center nearest you and for the procedures for obtaining warranty claims.

### 7.11 Warranty Laws

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

- The California Song-Beverly Consumer Warranty Act [CC §§1790 et seq],
- The California Uniform Commercial Code, Division Two [Com C §§2101 et seq], and
- The federal Magnuson-Moss Warranty Federal Trade Commission Improvement Act [15 USC §§2301 et seq; 16 CFR Parts 701– 703]. A typical Magnuson-Moss Act warranty is a written promise that the product is free of defects or a written promise to refund, repair, or replace defective goods. [See 15 USC §2301(6).] Remedies include damages for failing to honor a written warranty or service contract or for violating disclosure provisions. [See 15 USC §2310(d).] Except for some labeling and disclosure requirements, the federal Act does not preempt state law. [See 15 USC §2311.]

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

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

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