

LG V20

verizon<sup>✓</sup>

User guide.

M/FL70780001 (1.0) ME



User guide.

LG V20

Guía del usuario.

verizon<sup>✓</sup>

LG V20

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### Before you begin using your new phone

Included in the box with your phone are separate information leaflets. These leaflets provide you with important information regarding your new device. Please read all of the information provided. This information will help you to get the most out of your phone, reduce the risk of injury, avoid damage to your device, and make you aware of legal regulations regarding the use of this device.

It's important to review the Product Safety and Warranty Information guide before you begin using your new phone. Please follow all of the product safety and operating instructions and retain them for future reference. Observe all warnings to reduce the risk of injury, damage, and legal liabilities.

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## Phone Overview

### Front View



- NOTES**
- All screen shots in this guide are simulated. Actual displays may vary.
  - Instructions to perform tasks in this guide are based on the default settings and may change depending on the mode and software version on your phone.

1. **Proximity/Ambient light sensor** Senses proximity toward other objects (such as your head) so that tap commands are not accidentally activated during a call or when carried inside a pocket. It also employs an ambient sensor which measures the surrounding light and adjusts the LCD brightness to provide a vivid screen.

**NOTE** Don't block the sensor or near the sensor to avoid problems with the touch screen.

2. **Front camera** Use to take pictures and record videos of yourself. You can also use this for video chatting. Keep it clean for optimal performance.
3. **Back button** Returns to the previous screen. Also closes pop-up items, such as menus, dialog boxes and the on-screen keyboard.
4. **Earpiece** Lets you hear callers and automated prompts.
5. **Second screen** Displays recently used app icons, notifications, Quick contacts, useful information, and more.

6. **Recent apps button** Displays recently used applications and your open website tabs. If you touch and hold this button while viewing an app, it activates the Multi-Window feature.

**NOTE** The Multi-Window feature cannot be activated from the Home screen, the Recent apps screen, the Google app, or the Camera app.

7. **Home button** Returns to the Home screen from any screen. If you touch and hold this button, it opens the Google app.

## Rear View



8. **Back cameras** Use to take photos and record videos. Keep it clean for optimal performance.
9. **Flash** Brightens up the captured image or recorded video when you turn on the flash. When activated in the Accessibility settings, it will also flash to alert you (e.g., incoming calls and messages, alarms, etc).
10. **Power/Lock button, Fingerprint ID scanner** 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, and activate/deactivate Airplane mode. It also allows you to record and use fingerprint IDs to secure your phone.
11. **Back cover release button** Press to release to the back cover from the phone.



- Laser detection auto-focus** Detects the distance between the rear camera lens and nearby objects using laser technology. This feature helps the camera to focus quickly and accurately at short or long distances.

**NOTE** Don't cover the sensors for Proximity and Laser detection auto-focus with a protection film, pouch, or protection case not authorized by LG as they may cause the device to malfunction.

- NFC touchpoint** Tap the back of your phone to an NFC tag or another NFC compatible device in this location to transfer data between them.
- Volume** Press to adjust the ringer, the media volumes, or the in-call volume during a call. They can also activate the camera shutter and access shortcuts when enabled in the Settings menu.

### Top and Bottom Views



- Microphone** Transmits your voice to the other caller. It's also used for voice-activated functions.
- Infrared (IR) LED** Use to program and operate the QuickRemote feature.
- Headset jack** Allows you to plug in an optional headset for convenient, hands-free conversations or recording your voice using the **Audio Recorder** app. You can also plug in headphones to listen to music.
- USB/Charger port** Allows you to connect the phone and the USB Type-C cable for use with the charger adapter, or other compatible accessories.
- Speaker** Use to listen to audio (e.g., music, videos, sound clips, speakerphone, etc.) from the rear speaker instead of the earpiece.

## Help

The Help app allows you to quickly and conveniently view information about your phone, including how-to tutorials, Icon glossary, etc.

To access Help, tap the **Home button** ○ > swipe left, if necessary > tap **Help** .

## Setting Up Your Phone

Your phone already has a SIM card installed.

### Step 1. Remove the Back Cover

With the phone facing down, press the **Back cover release button** to release the back cover and then gently lift the cover.



### Step 2. Insert the Battery

Insert the battery, making sure the gold contacts line up. Press down gently to secure it.



### Step 3. Replace the Back Cover

1. Line up the bottom edge of the back cover with the bottom of the phone. Then press gently along the bottom edge to start securing the cover.



2. Starting at the bottom edge, press gently up the sides of the cover to fully secure it.

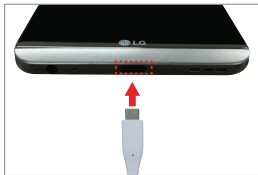


**NOTE** Using excessive force may damage the hooks along the inside edges of the back cover. Instead, when pinching the cover in place, apply slight pressure upward (toward the top of the phone) to engage the securing hooks.

## Step 4. Charge the Phone

Before turning on your phone, charge it fully.

Be sure to use the USB Type-C cable and charger adapter that came with your phone. See **Charging Your Phone** on pages 16 and 17 for more information.



**WARNING!** Use only approved chargers with your device. Incompatible chargers or tampering with the charging port could damage your device and void the warranty.

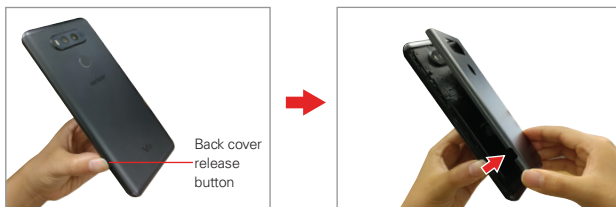
### Precautions when using the device

- ▶ When replacing the battery, take extra care to ensure that no foreign substance or water enters the device.
- ▶ Ensure that the inside of the device does not get damaged by contact with either a metallic object or water.
- ▶ Do not use force to separate the back cover from the device. Press the back cover release button to release the cover from the device.
- ▶ Make sure to use the USB Type-C cable provided as a basic accessory.
- ▶ Failure to follow the instructions in this guide may damage the device.

## Removing the Battery and SIM Card

### Removing the battery

1. Turn the phone off, then with the phone facing down, press the back cover release button to release the cover and then lift the back cover up gently.



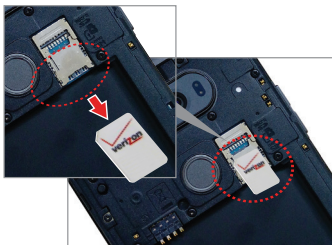
2. Use the fingertip cutout at the bottom of the battery compartment to lift the battery out.



## Removing the SIM card

The SIM card is pre-installed in your smartphone. If you need to replace your SIM card, refer to the following instructions.

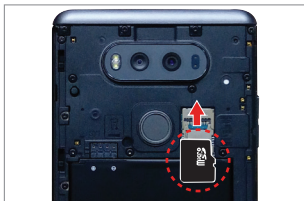
1. Turn the phone off, then remove the back cover and the battery (as demonstrated in the previous instructions).
2. Locate the slot for the SIM card (the lower of the two slots at the upper-right corner of the battery compartment) and gently slide the SIM card out to remove it.



## Inserting and Removing a Memory Card

### Inserting a microSD card

1. Remove the back cover (as demonstrated in the previous instructions) and locate the dual slot at the upper-right corner of the battery compartment. (microSD is inscribed near the slot opening.)
2. Position the microSD card (sold separately) with the label side facing up and the gold contacts toward the slot, then carefully slide it into the upper slot until it's secured in place.

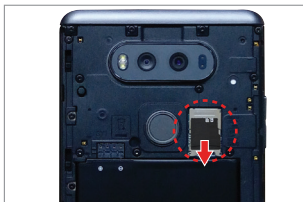
**NOTE**

The microSD card can be easily damaged by improper operation. Please be careful when inserting, removing, or handling it.



### To remove the microSD card

1. Unmount the microSD card.
  - ▶ Tap the **Home button** ○ > swipe left, if necessary > tap **Settings** ⚙️ > **Storage** > the **Eject icon** △.
2. Remove the back cover and locate the microSD card slot (as demonstrated in the previous instructions).
3. Carefully pull the microSD card out to remove it.



### To unmount the microSD card

It's important to unmount the microSD card prior to removing it from the phone to avoid damage to it or the data saved on the card.

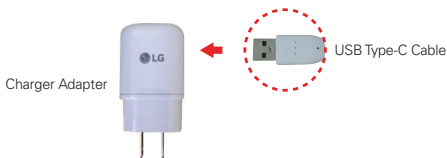
1. Tap the **Home button** ○ > swipe left, if necessary > tap **Settings** ⚙️.
2. Tap **Storage**.
3. Tap the **Eject icon** △.

## Charging Your Phone

Your phone comes with a USB Type-C cable and a charger adapter. You can connect them together and charge from a power outlet, or you can use the USB Type-C cable alone to charge from your computer. Correctly orient the plugs before insertion to avoid damaging your cable, adapter, and/or ports.

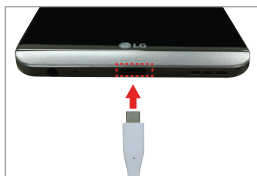
**NOTE** Please only use an approved charging accessory to charge your LG phone. Improper handling of the USB/Charger Type-C port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.

1. Correctly orient the USB Type-C cable with the charger adapter and connect them. As shown below, both the 3 dots on the USB Type-C cable and the LG logo on the adapter will face toward you.



2. The USB/Charger Type-C port is located at the bottom of the phone. Insert the cable's plug in the port.
3. Plug the charger adapter into a power outlet to begin charging.

## Charging with the USB Type-C Cable



USB Type-C Cable

You can use your computer to charge your phone. To be able to charge with the USB Type-C cable alone, you need to have the necessary USB drivers installed on your PC first. Connect one end of the USB Type-C cable to the USB/Charger Type-C port on your phone (as shown above) and connect the other end to a USB Type-C port on your PC. It's best to use the rear USB Type-C port when connecting to a desktop PC. The USB hub should be powered by an external power source.

**NOTE**

You may experience a slower charging rate when charging from your computer.

## Optimizing Battery Life



You can extend your battery's life between charges by turning off features that run in the background. You can also monitor how apps and system resources consume battery power.

### Tips to extend the life of your battery

- ▶ Reduce the screen brightness and set a shorter screen timeout.
- ▶ Turn off radio communications (such as Wi-Fi, Bluetooth®, GPS, etc.) that you're not actively using. (Note that the GPS receiver is only turned on when you're using an app that makes use of it.)
- ▶ Turn off automatic syncing for Gmail, Calendar, Contacts, and other apps if you don't need it.

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



### To check the battery charge level

Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Battery**.

- ▶ The battery level (as a percentage of fully charged) and the battery status (Charging) is displayed at the top of the screen.
- ▶ Enable the **Battery percentage on Status Bar** switch to display the percentage of remaining battery charge on the Status Bar next to the battery icon.
- ▶ Tap **Battery saver** to view and/or modify your Battery saver settings.

## To monitor and control what uses the battery

The Battery usage screen allows you to see which apps are consuming the most battery power. Information on this screen allows you to identify downloaded apps you may want to turn off when not being used, so you can get the most out of your battery power.



- ▶ Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Battery** > **Battery usage**.

The top of the Battery usage screen displays a usage graph and below it, battery usage times. It lists all of the apps or services using battery power from the greatest amount of energy used to the least amount.

- ▶ Tap an app or service in the Battery usage screen to see details about its power consumption. Different apps or services offer different kinds of information, and they may even include options to modify the settings so you can reduce power consumption by that app (or stop running the app).


## Battery saver

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


- ▶ Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Battery** > **Battery saver**.
- ▶ From the Battery saver screen, tap **On**, then select to activate Battery saver immediately, or when the charge drops to 5% or 15%. If you turn off Battery saver, when the battery charge becomes low, a notification prompts you to turn it on.

## Turning Your Phone On and Off

### Turning your phone on

- ▶ Press and hold the **Power/Lock button**  for a couple of seconds until the screen turns on.

### Turning your phone off

1. Press and hold the **Power/Lock button**  until the Phone options appear.
2. Tap **Power off**.
3. Tap **POWER OFF** to confirm that you want to turn off the phone.

### Turning the screen on using the KnockON feature

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

- ▶ Quickly double-tap the center of the dark screen to turn on the backlight and display the Lock screen.
- ▶ Quickly double-tap the Status Bar, an empty area on the Home screen, or the Lock screen to turn the screen off.



**NOTE** The backlight will not turn on if the proximity sensor is covered.

### Turning the screen on using the Knock Code feature

If your Lock screen unlock sequence is set to a Knock Code, tap your Knock Code on the darkened screen to automatically turn on the backlight and unlock the screen at the same time.

**NOTE** Use a fingertip instead of a fingernail to tap your Knock Code on the screen.

### Setting up the Knock Code feature

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security**.
2. Tap **Select screen lock** > **Knock Code**.
3. Tap the squares in a pattern (from 6 to 10 taps) to set your Knock Code, tap **DONE**, enter it again, then tap **CONFIRM**.

## To unlock the phone

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

**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 Knock Code, pattern, PIN, password, or fingerprint) that will need to be entered to unlock it.

1. Turn the screen on.

▶ Press the **Power/Lock button** .

**OR**

▶ Quickly double-tap the center of the screen (KnockON).



2. From the center of the screen, swipe in any direction to unlock it.

▶ To use a shortcut, swipe upward across the shortcut icon (at the bottom of the screen). The screen will unlock and launch the app.

**NOTE** You can set the shortcut apps you want in the Lock screen settings.

## Anti-Theft Guide

You can set up your device to prevent other people from using it if it's been reset to factory settings without your permission. For example, if your device is lost, stolen, or wiped, only someone with your Google Account or screen lock information can use the device.

All you need to make sure your device is protected is:

- ▶ **Set a screen lock:** If your device is lost or stolen but you have a screen lock set, the device can't be erased using the Settings menu unless your screen is unlocked.
- ▶ **Add your Google Account on your device:** If your device is wiped but you have your Google Account on it, the device can't finish the setup process until your Google Account information is entered again.

After your device is protected, you'll need to either unlock your screen or enter your Google Account and password if you need to do a factory reset. This ensures that you or someone you trust is doing the reset.

### NOTE

Do not forget your Google Account and password you had added to your device prior to performing a factory reset. If you can't provide the account information during the setup process, you won't be able to use the device at all after performing the factory reset.

## Touch Screen

Your touch screen provides an excellent way to interact with and use your Android™ phone. With the touch of your finger, you can download and use available apps, make menu selections, and access data saved to your phone.

**Touch or tap** A single finger touch selects items. For example, tap an icon (e.g., an app, widget, or folder), tap words (e.g., menu selection or to answer an on-screen question), or touch letters and numbers to type.

### NOTE

Don't press too hard on the screen. It's sensitive enough to detect a light, firm tap.

**Touch and hold** Touch an item on the screen and don't lift your finger until an action occurs. For example, to open a context menu for a contact, touch and hold the contact entry until the menu pops up.



**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 Home screens by swiping left and right, slide the screen up or down to scroll through a list, or remove an app 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 on/off. For example, quickly double-tap a section of a web page to zoom that section to fit the width of the screen and control the zoom in Maps and in other apps. Double-tap a word to highlight it. Double-tap can also activate the KnockON feature to turn the screen on or off.

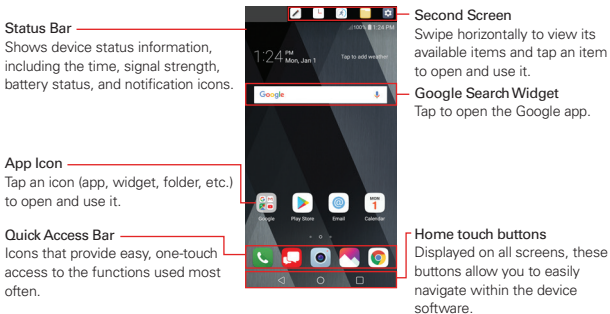
**NOTE** Certain Accessibility features (such as Touch zoom) use a triple-tap gesture to zoom or activate functions. A triple-tap will also activate a new event in the Calendar app.

**Multi-touch** Use your index finger and thumb in a pinch motion (to zoom out) or spread motion (to zoom in) when using Chrome, a map, photos, the rear camera lens, and in lists (e.g., Contacts, Groups, and the Messaging list). 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 affects the Home screen. Spread apart on the 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 phone's physical orientation by rotating the screen. You can deactivate this function in the Display settings menu.

## Getting to Know the Home Screen

The Home screen is your starting point to access all of the features on your phone using simple motions on the screen. It's comprised of multiple panels (swipe horizontally to switch). You can customize all of your Home screen panels with app shortcuts, icons, widgets, folders, and other features.



### Quick Access Bar icons

The Quick Access Bar is located on your Home screen panels to allow quick and easy access to the apps you use most often.

### Modifying the Quick Access Bar icons

- ▶ **Rearrange:** Touch and hold the icon to move, then drag it to another position in the Quick Access Bar or on a Home screen panel.
- ▶ **Add:** Touch and hold the icon (on any of your Home screen panels), then drag it onto the Quick Access Bar. The Quick Access Bar can accommodate up to 7 icons. Drag an icon on top of an icon in the Quick Access Bar to create a folder with multiple apps in it.
- ▶ **Remove:** Touch and hold the icon to remove from the bar, then drag it to another location on your Home screen.

## Home touch buttons


The Home touch buttons are displayed in a bar at the bottom of all of the screens to provide easy navigation within the device software.

- ◀ **Back button:** Tap to back up one step at a time and close on-screen items such as pop-up messages, the on-screen keyboard, etc.
- **Home button:** Tap to immediately return to the Home screen. Touch and hold it to access the Google shortcut.
- **Recent apps button:** Tap to display the apps you've recently used (and your open websites). If you touch and hold this button while viewing an app, it launches the Multi-Window feature.

**TIP** Swipe horizontally across the Home touch buttons to switch to Mini view (for one-handed operation).

## Modifying the Home touch buttons

You can change which buttons are displayed in the Home touch buttons Bar, as well as their position and color.

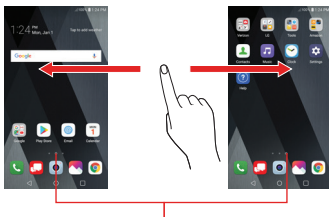
1. Tap the **Home button** ○ > swipe left, if necessary > tap **Settings**  > **Display** > **Home touch buttons**.
2. Select the modification you want to apply.
  - ▶ Tap **Button combination** to select which Home touch buttons you want in the bar and their location within the bar. Choose from the **Back button**, the **Home button**, the **Recent apps button**, the **Notification button**, the **Capture+** button, and the **QSlide button**.
  - ▶ Tap **Background color** to set the button color to white or black.
  - ▶ Tap **Hide Home touch buttons** to hide the Home touch buttons on the apps you select. To access the Home Touch Button Bar from those apps, swipe upward from the bottom of the screen to temporarily redisplay them.

### To return to the Home screen

- ▶ Tap the **Home button**  at any time, from any app.

### To view other Home screen panels

- ▶ Swipe (or flick) your finger left or right across the Home screen's sliding panels. You can add additional panels to allow more space for icons, widgets, shortcuts, and other items.




**Home Screen Panel Indicator**

The white dot (above the Quick Access Bar) indicates the current Home screen panel.

- ▶ Tap any of the Home screen panel indicator dots (above the Quick Access Bar) to immediately jump to that panel.

### Hiding items on the Home screen

Place two fingers on the screen, then spread them apart to hide the items on your Home screen so that only your wallpaper, the Second screen, the Status Bar, the Home screen indicator dots, and the Home touch buttons Bar are displayed. To redisplay your Home screen with all of its icons and widgets, pinch in on the screen or tap the **Back button** .

**NOTE** The device automatically reverts to the full screen view after screen timeout.

### Moving apps to other Home screen panels

Touch and hold the app icon, then drag it to the left or right edge of the screen to advance to the other panels before lifting your finger.

**TIP** To create a new panel, drag the icon to the right edge of the last panel on the right.

## Using Dual View



Slide the screen right or left to view different Home screen panels.

Dual View Icons

Dual view allows you to easily customize your Home screen. Touch and hold an empty spot on a Home screen panel to view your Home screen on top and the Dual view icons (**Widgets, Theme, Wallpapers, Grid, and Home screen settings**) on the bottom. Flick sideways to scroll through the Home screen panels to display the panel you want. Tap the Dual view icon you want to use. From **Grid** or **Home screen settings**, tap the change(s) you want to make. From **Wallpapers**, select from the available choices and complete your selection as necessary. From **Widgets**, scroll horizontally through the choices. Touch and hold the one you want (tap the widget's category first, if necessary), then drag it onto the Home screen panel you want and complete your selection as necessary.

**TIP** If you drag the widget to the right edge of the screen, it creates a new Home screen panel.

**NOTE** The Quick Access Bar isn't displayed while in Dual view.



To return to the full screen view, tap the **Back button** ◀ or tap one of the Home screen panels.


**NOTE** The device automatically reverts to full screen view after screen timeout.

## Using Mini view



The Mini view feature allows you to shrink the Home screen into a mini window to make your device easier to use with just one hand.



Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Mini view** > enable its switch to activate it.

- ▶ Swipe across the Home touch buttons to activate the Mini view window.
- ▶ Drag the mini window's title bar to move it on the screen.
- ▶ Drag the upper-right corner of the window to resize it proportionally.
- ▶ Tap the **Close** icon  on the Mini view window to close it and return to full screen.

**NOTE** The Second screen remains active at the top of the device when Mini view is activated.

## EasyHome screen version

EasyHome is a more simplified version of the Home screen that you can choose to use on your phone.

Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Home screen** > **Select Home** > **EasyHome**.

The EasyHome Home screen has three panels.

## Main panel


The main panel has 12 application icons, it displays the date and time and also displays weather information.



- ▶ Tap an app icon to use it. Touch and hold one to remove or replace it.
- ▶ The top right of the screen displays the date and time. Tap it to access the **Clock** app.
- ▶ The top left of the screen displays a Weather widget. Tap it to access the **Weather** app.

## Communication panel

Swipe to the right on the main panel to access a panel for your Contact shortcuts as well as access the Phone app's Dial tab, Recent tab, and Contacts tab.



- ▶ Tap one of the 9 shortcuts, then tap the contact you want to set. Tap a shortcut's **Dial** icon  to call its number. Tap a shortcut's image to select **Make voice call**, **Make video call**, **Send message**, or **Remove shortcut**.
- ▶ Tap **Dial**, **Recent**, or **Contacts** to open the **Phone** app with the corresponding tab displayed (Dial displays the dialpad, Recent lists all of your recent calls, and Contacts displays your entire Contacts list). You can change tabs to access other Phone app information.

### Additional shortcuts panel


Swipe to the left on the main panel to access a panel you can customize with additional app shortcuts and open the Applications screen.



- ▶ Tap the **Apps** icon to open the Applications screen with all of your installed apps.
- ▶ Tap an app to use it. Touch and hold one to remove or replace it.
- ▶ Tap the **Add** icon **+**, then tap the app you want to add to the shortcuts panel.
- ▶ Tap the Google search box to open the **Google** app (or tap its microphone to search by voice).

### To change back to the Android Home screen

Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Home screen** > **Select Home** > **Home**.



### Home with separate apps list

Home with separate apps list is another version of the Home screen that you can use on your phone. This version places all of your installed and downloaded apps in an Applications screen instead of on your Home screen panels. The **Apps** icon  in the Quick Access Bar provides you with access to all of your apps and you can copy just the app shortcuts you want on to your Home screen.

- ▶ Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Home screen** > **Select Home** > **Home with separate apps list**.

### Using Home with separate apps list

#### To add and remove shortcuts

- ▶ To add an app shortcut, tap the **Apps** icon , touch and hold the app you want, then drag it to the panel you want. Or, touch and hold an empty spot on a Home screen panel, tap the shortcut you want, then tap the **Back button** .
- ▶ To remove an app shortcut, touch and hold the app icon, drag it to the **Remove bar**, then lift your finger.




## Apps: How to View, Open, and Switch






### Opening an app

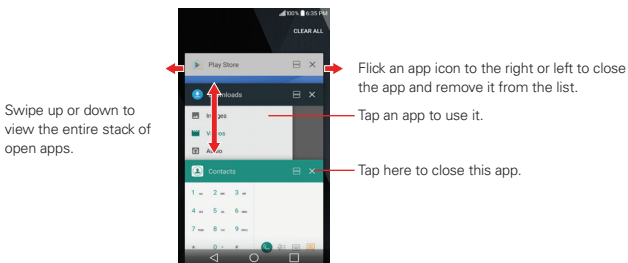
- ▶ Open an app simply by tapping its icon on the screen.

### Opening multiple apps

1. Tap an app icon to open it.
2. Tap the **Home button** .
3. Tap the icon for the other app you want to open.

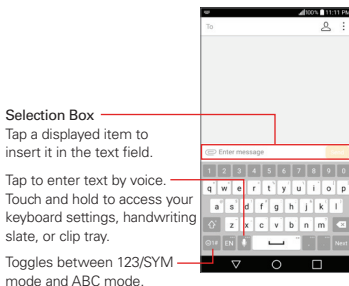
### Switching between multiple apps

1. Tap the **Recent apps button** . A screen opens and displays previews of all of the apps (and websites) that are currently open.
2. Tap the app you want to use, tap the **Close icon**  on the app to close it, or tap the **Back button**  to return to the current screen.



## Text Input Methods

The on-screen keyboard displays automatically on the screen when you need to enter text. To manually display the on-screen keyboard, simply tap a text field where you want to enter text.



## Modifying your LG keyboard characteristics

Tap the **Home button**  $\bigcirc$  > swipe left, if necessary > tap **Settings**  $\text{⚙}$  > **System** > **Language & input** > **On-screen keyboard** > **LG Keyboard** > **Keyboard height and layout**.

- ▶ The **QWERTY layout** setting allows you to select the default buttons on either side of the Space button.
- ▶ The **Extended keyboard** switch allows you to display the numeric buttons on the top row of the keyboard.
- ▶ The **Keyboard height** setting allows you to change the size ratio between the keyboard (including the size of its buttons) and the screen.
- ▶ The **Keyboard type in landscape** setting allows you to set the keyboard to be expanded or compressed when the phone is in landscape mode.
- ▶ The **One-handed operation** switch allows you to swipe the keyboard left or right to adjust the position of the LG keyboard (portrait mode only) to use just one hand to type.

## Text input settings

To change your text input settings and see the dictionary of terms you've used, tap the **Home button** ○ > swipe left, if necessary > tap **Settings** ⚙️ > **System** > **Language & input**. From this menu you can change the language for your phone's software, set your keyboard input (including setting multiple languages and how it reacts), set Google voice settings, set your voice search and text-to-speech output preferences, as well as the set the pointer reaction time and more. See the Settings section for more information about the keyboard settings.

## Languages

You can set only one main language for your phone's operating software, but you can set multiple secondary languages and switch as needed. In addition, you can set multiple languages used for the on-screen keyboard.

### To change the main language



- ▶ Tap the **Home button** ○ > swipe left, if necessary > tap **Settings** ⚙️ > **System** > **Language & input** > **Language** > **ADD LANGUAGE**. Tap the language you want. Touch and hold the language, then drag it to the top of the language list to make it your phone's main language.



**NOTE** After adding additional secondary languages, drag any language to the top of the list to set it as your main language.

### To add additional languages for your keyboard



- ▶ Tap the **Home button** ○ > swipe left, if necessary > tap **Settings** ⚙️ > **System** > **Language & input** > **On-screen keyboard** > **LG Keyboard** > **Select languages** > checkmark all of the languages you want to be able to type.

## Capturing a Screenshot

Press and hold the **Volume Down** button  and the **Power/Lock** button  at the same time for 2 seconds to capture a screenshot of the current screen.

To view the captured image, tap the **Home** button  > swipe left, if necessary > **Gallery**  > the **Screenshots** album.

### Using Capture+ to capture a screenshot

On the screen you want to capture, drag the Status Bar downward and tap the **Capture+** icon  (in the Quick settings). The image is captured, but not saved until you tap the **Done** icon  and choose a save location.

**NOTE** Make sure that the paper style is not set to paper.

Access the app (**QuickMemo+** or **Gallery**) where you saved it to view your captured image.




**NOTE** Screenshots saved to the Gallery app are in the **Capture+** album.

## Second screen

The Second screen feature can display app icons, notifications, Quick contacts, useful information, and more. You can set when it's enabled and what it displays. It can be enabled when the main screen is on and also when the main screen is off. When enabled, the Second screen items are displayed at the top of the screen above the Status Bar making multi-tasking easy. No matter what's displayed on the screen, you can tap an item in the Second screen to immediately use it.



**NOTE** The Second screen may also display specialized functions within specific apps (e.g., selects the camera mode, controls zoom when recording, etc.).

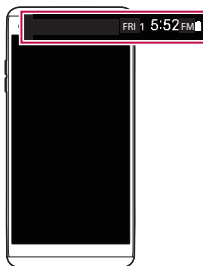
### To enable the Second screen:

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Second screen**.
2. Set when the Second screen is enabled and what it displays.
  - ▶ **When the main screen is on:** Tap its switch to toggle it On (blue) or off, then enable the switches for the items you want it to display including: **Signature**, **QuickTools**, **Shortcuts**, **Music player**, **Quick contacts**, **Recent apps**, and /or **Upcoming plans**.
  - ▶ **When the main screen is off:** Tap its switch to toggle it On (blue) or off, then adjust the settings for the content you want it to display including **Default screen**, **QuickTools**, and/or **Daily timeout**.
  - ▶ **Show time while content is shown:** Tap the switch  to display the time and phone status on the Second screen while you use media content.

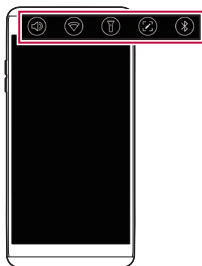
## Using Second screen when the screen is off

You can choose to display various items (such as date/time, notifications, tool icons, etc.) on the Second screen when the screen is off. This is helpful so that you don't have to turn on the main screen to check the time, but it uses more battery power.

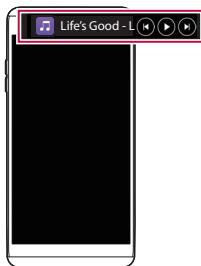
1. Tap the Home button  > swipe left, if necessary > tap Settings  > Second screen > When the main screen is off.
2. Configure the options as desired.



Display date and time



Start Quick tools



Start Music player

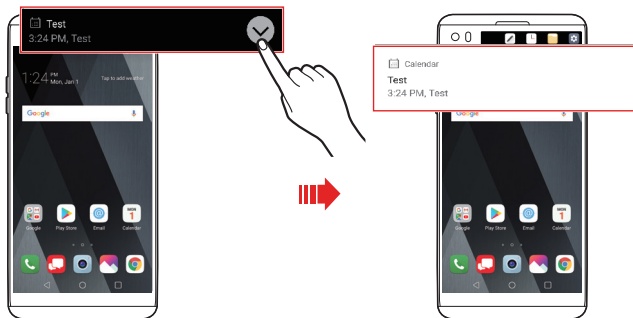
## Using the Second screen options with the screen off

To use the options you set to be available while the screen is off, swipe horizontally to scroll through them. Tap an icon to use the app or feature.

## Expandable Notification

You can receive notifications from other apps in the Second screen. When a notification arrives, tap the **Expand** icon (▼) to open the notification.

Depending on the app and the type of notification, tap the open notification window to view it in full screen.



## Using Direct Reply

When a Direct reply message notification appears on the Second screen, tap the **Expand** icon (▼) then tap **REPLY** to reply to the received message. You can immediately compose your reply message in the Direct reply window without closing your current app, or you can tap the Direct reply window to open its corresponding app. This feature is available on Google and other apps such as Messaging, Gmail, and Hangouts.

**NOTE**

Messaging, Hangouts and other apps support the Direct reply feature. However, not all apps support this feature.








## Phone's Status Icons

The Status Bar appears at the top of every screen. It displays icons indicating that you've received notifications (on the left) and icons indicating the phone's status (on the right), along with the current time.



The following icons may appear in the Status Bar.

















### Call icons

	In call		Missed call
	Speakerphone on		Microphone muted
	Video call		

### Sound icons











	Do not disturb - Priority only		Do not disturb - Total silence
	Vibrate mode		Silent mode
	Music playing		Music paused

### Network icons








	3G connected		3G in use
	4G LTE connected		4G LTE in use
	Wi-Fi connected		Signal strength
	No signal		Roaming
	Network Extender		No SIM card
	Unknown SIM card		Airplane mode
	GPS on		App update available
	App update successful		Downloading

	Uploading		Download successful
	Emergency Alert		

### Connectivity icons

	USB connected		Mobile Hotspot on
	Bluetooth connected		USB debugging mode
	Bluetooth headset full battery		Bluetooth on
	Headset connected		Bluetooth headset low battery
	Internal storage full		Headset with microphone connected






### Email and Messaging icons

	New email		New Gmail message
	New message		New Verizon message
	New voicemail		Email not sent
	Message not sent		


### Calendar and Alarm icons

	Alarm set		Upcoming events
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### Battery icons

	Full battery		Charging battery
	Low battery		Empty battery
	Not Charging		

### Other icons

	More notifications		Screenshot saved
	Keyboard		

## Managing Notifications


Notification icons report the arrival of new messages, calendar events, alarms, as well as ongoing events, such as when you're on a call. When you receive a notification, the notification icon will be displayed in the Status Bar. You can open the Notifications panel to view a list of all of your recent notifications. Depending on your settings, you may hear a notification sound, and/or the phone may vibrate, and/or see a notification light.

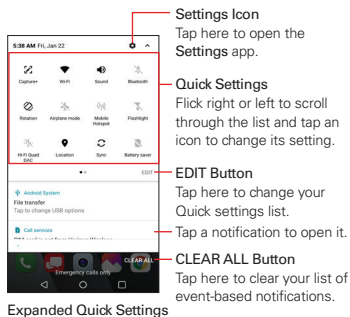
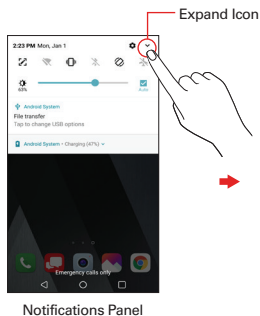
### To open the Notifications panel

Touch and drag the Status Bar to the bottom of the screen.

The Notifications panel displays a list of your current notifications, organized into ongoing and event-based notifications. The Quick settings (at the top of the panel) allow you to quickly and easily change commonly used settings.

#### NOTE

Tap the **Settings** icon  to access the complete Settings app from this panel.




### To respond to a notification

1. Open the Notifications panel. Your current notifications are listed in the panel, each with a brief description.
2. Tap a notification to view it.

The Notifications panel will close and the app that corresponds to your selection will open. For example, Gmail notifications open the Gmail app so you can read your new messages.




### Quick settings on the Notifications panel

You can customize your Notifications panel to allow quick access to change commonly used settings. Your first 5 Quick settings icons are displayed at the top of the Notifications panel. Tap the **Expand** icon  to access all of your Quick settings choices and swipe left to view more of your Quick settings icons, if necessary. You can set which icons to display (and their placement), include slide bars for Brightness and Volume, and add Sharing icons.

**TIP** You can drag downward on the Quick settings section to expand it and drag upward to compress it.

### Customizing your Quick settings



You can set the order of your Quick settings icons as well as which icons are displayed and enable/disable the setting slidebars and sharing icons.

1. Open the Notifications panel, tap the **Expand** icon , then tap **EDIT**. The top white section indicates your Quick settings icons.
  - ▶ **To add an icon:** Touch and hold the icon, then drag it to the upper section of the screen.
  - ▶ **To delete an icon:** Touch and hold the icon, then drag it to the lower section of the screen.
  - ▶ **To move an icon:** Touch and hold the icon, then drag it to another position in the upper section.
  - ▶ **To enable/disable the sidebar settings and sharing icons:** Tap the **Menu** icon , then checkmark the ones you want to appear in your Notifications panel.
2. Tap the **Done** icon  to return to the Notifications panel.

## Setting Your Lock Screen

There are several Lock screen types allowing you to lock your phone so that only you can unlock it to make calls, access your data, buy apps, and otherwise prevent unauthorized use.

### Setting a Screen Lock for the First Time

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security**.
2. Tap **Select screen lock**.
3. Tap **None, Swipe, Knock Code, Pattern, PIN, Password** or **Fingerprints**.

**None:** Deactivate the screen lock function.

**Swipe:** A swipe motion in any direction on the screen will unlock the screen. This is the default Lock screen that simply guards against unintentional actions.

**Knock Code:** Unlocks the screen using a tapping a sequence on the screen's 2x2 grid. (When the screen is in timeout, the 2x2 grid is invisible, but the grid is displayed on the Knock Code Lock screen.) The first time you set a Knock Code, you'll see a tutorial with instructions on how to create it. Tap a sequence on the 2x2 grid (from 6 to 10 taps), then tap **DONE**. Tap your sequence again and tap **CONFIRM**.

**Pattern:** Unlocks the screen using a pattern you draw with your finger. Draw your pattern (connect at least 4 dots) and tap **NEXT**. Then redraw your pattern and tap **CONFIRM**.



**PIN** Unlocks the screen with a number sequence. Enter a PIN (at least 4 digits) and tap **NEXT**. Reenter your PIN and tap **OK** to confirm it.

**Password** Unlocks the screen with an alphanumeric sequence. Enter a password (at least 4 characters) and tap **NEXT**. Re-enter your password and tap **OK** to confirm it.

**Fingerprints** Unlock the screen by using your fingerprint.

From then on, any time you want to unlock the screen, you'll need to perform the unlock action you set (swipe, Knock Code, pattern, PIN, or password) to gain access to it.



## Changing Your Screen Lock

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security**.
2. Tap **Select screen lock**.
3. Confirm your unlock information (if necessary).
4. Tap the desired screen lock option and complete as necessary.


**NOTE** If you've set up a Microsoft Exchange account, you might only be able to use a password.



## Lock timer

If a security lock is enabled, you can set the delay time after the screen darkens due to inactivity before the screen automatically locks and requires you to enter your unlock sequence.

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Secure lock settings**.
2. Tap **Lock timer**, then tap the setting you want to use.



## Power key instantly locks

If a security lock is enabled, enable the **Power key instantly locks** switch to override the Security lock timer setting and lock the screen as soon as you press the **Power/Lock button** .

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Secure lock settings**.
2. Enable the **Power key instantly locks** switch.

## The Lock screen wallpaper



You can set the Lock screen wallpaper separately from your Home screen wallpaper.

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Customize Lock screen**.
2. Tap **Wallpaper**.
  - ▶ Tap **Wallpaper gallery** to select one of the available wallpaper images.
  - ▶ Tap **Gallery** to select an image from your Gallery.

- ▶ Tap **Signature Wallpaper** to create a lock screen wallpaper using the first character of the signature set on the Second screen.

## Signature Wallpaper

You can create a personalized Lock screen wallpaper that uses the first letter of your signature from the Second screen.

1. Tap the **Home button** ○ > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Customize Lock screen** > **Wallpaper** > **Signature Wallpaper**, then tap the **Edit** icon .
2. Enter your signature and tap **SAVE** to save the setting.
  - ▶ The first letter of your signature is displayed on the locked screen.
3. Tap **SET WALLPAPER** to set the wallpaper.

**NOTE** This feature is disabled if the screen lock is set to **None**.



Customizing the Signature Wallpaper



Signature Wallpaper Screen

## Fingerprints and Security

The Fingerprints & security setting allows another secure way to unlock your phone. Set it up to allow you to place a finger on the **Power/Lock button** to unlock the screen, access Gallery and QuickMemo+ content, and pay using your phone. Once you've set a secure screen lock, you can record a fingerprint (or multiple fingerprints).

### Registering a fingerprint

1. Tap the **Home button** > swipe left, if necessary > tap **Settings** > **Lock screen & security** > **Fingerprints**.
2. Read the fingerprint information, then tap **NEXT**.
3. Enter your unlock sequence or set a screen lock (whichever is needed).
4. Place your finger on the **Power/Lock button** and follow the screen prompts until the fingerprint is registered.

#### NOTES

- Make sure that your fingers and the **Power/Lock button** are clean and dry.
- Moisture, lotions, sweat, oils, cut or dry skin might affect the fingerprint recognition. Certain activities can also temporarily affect fingerprint recognition, including exercising, showering, swimming, cooking, or other conditions that change the characteristics of your fingerprint.
- Cover the **Power/Lock button** completely. Don't press too hard or too quickly (hardly move your finger while scanning is in progress).
- As you use the Fingerprint feature, it will continue to learn and improve recognition of your fingerprint.








- ▶ Repeat scanning the fingerprint by moving your finger little by little until the fingerprint registers.
5. When your fingerprint registration is done, tap **OK**.
    - ▶ Tap **Add fingerprint** to register another fingerprint. If you register only one fingerprint and the corresponding finger is not in good condition, fingerprint recognition may not work well. It's a good idea to register multiple fingerprints to safeguard against fingerprint recognition problems.



### Managing fingerprints

You can edit or delete registered fingerprints.

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Fingerprints**.
2. Enter your unlock sequence.
3. From the registered fingerprints list, tap a fingerprint to rename it. To delete it, tap the **Delete** icon .

### Unlocking the screen with a fingerprint

When enabled, you can unlock the screen and/or view locked content using your fingerprint.

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Lock screen & security** > **Fingerprints**.
2. Enter your unlock sequence.
3. On the Fingerprints settings screen, enable the following switches as desired.
  - ▶ **Screen lock**: Unlocks the screen with a fingerprint.
  - ▶ **Content lock**: Access locked contents with a fingerprint.

#### NOTE

To enable the Content lock switch, you'll need to set up the **Content lock** setting (on the Fingerprints screen) with a pattern or a password.

## Fingerprints & security settings

The Fingerprints & security settings include managing fingerprints (recording, naming, removing, etc.), setting content lock, encryption, SIM card lock, password visibility, phone administration, credential storage, trust agents, Screen pin, and app usage access.

- ▶ Tap **Fingerprints**, then enter your unlock sequence to manage your stored fingerprints, enable screen unlock with your fingerprint, enable content access with your fingerprint, and enable available payments.

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




## Multi-Tasking

### Multi-window


The Multi-window function splits the screen to enable two app windows to be active at the same time (multi-tasking). This allows you to use drag and drop interaction within your recently used apps.


### Activating the Multi-window function

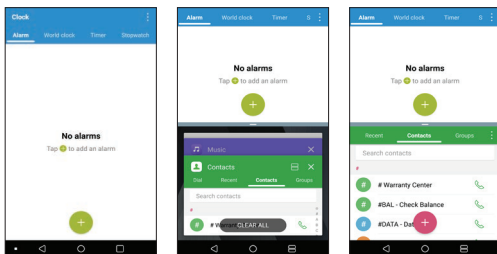
The Multi-window function is activated within your open apps.


1. Tap the **Home button**  > **Recent apps button**  > the **Multi window icon**  (displayed on one of your compatible open apps), then tap the other app you want to use.

OR


While using an app, touch and hold the **Recent apps button** , then tap an app from your recently-used apps list.

- ▶ To stop the Multi-window function, touch and hold the **Multi window** .



**NOTE** The **Multi-window icon**  will only be displayed on apps that are compatible with the Multi-window function.

### Overview screen

The Overview screen provides a preview of your recently-used apps. To view the list of recently-used apps, tap .




## Wi-Fi

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

### Connecting to Wi-Fi networks

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




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

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Network & internet** > **Wi-Fi**.
2. Tap the **Wi-Fi switch**  to turn Wi-Fi on and start scanning for available Wi-Fi networks.
3. Tap **SEARCH** to see a list of active and in-range Wi-Fi networks.
  - ▶ Secured networks are indicated by a lock icon.
4. 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.)
5. The Status Bar displays icons that indicate your Wi-Fi status.

## Wi-Fi Direct

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

### Turning on Wi-Fi Direct

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Network & internet** > **Wi-Fi**.
2. Tap the **Menu icon**  > **Advanced Wi-Fi** > **Wi-Fi Direct**.

**NOTE**

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

## Bluetooth




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

### 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 device.

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

You must pair your phone with a Bluetooth device before you connect to it.

1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Connected devices** > **Bluetooth**.
2. Tap the **Bluetooth** switch  to turn Bluetooth on and search for the devices within your phone's range.
3. Choose the device you want to pair with from the list.

Once pairing is successful, your phone will connect to the device.


### Send data using the Bluetooth wireless feature

1. Open the item you want to send, then tap the **Sharing** icon .

OR

Touch and hold the item you want to send, then select **Share**.

OR

Open the item you want to send, then tap the **Menu** icon  > **Share**.

2. Tap **Bluetooth** to share via Bluetooth.

### NOTE




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

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

## Content Sharing




### Viewing content

Share media content on the device with nearby devices that support DLNA.

1. Tap the **Home Button**  > swipe left, if necessary > **Settings**  > **Connected devices** > **Media server**.
2. Tap  to activate **Content Sharing**.
  - ▶ If you approve a share request from a nearby device, the device can access content on your device.
  - ▶ To change the content type accessible to nearby devices, tap **Content to share**.

### Sending or receiving files



You can send or receive files saved on your device to another LG device or tablet.

Tap the **Home Button**  > swipe left, if necessary > **Settings**  > **Connected devices** > **File sharing** > **SmartShare Beam** and tap  to activate it.

#### NOTES



- Make sure that your device is connected to the same wireless network as the file transfer target device.
- Make sure that **File sharing** is turned on in the Notification panel of both the device and the target device.

### Sending files to another device

1. Select a file and tap the **Share icon**  > **SmartShare Beam**. You can also tap the **Share icon**  from the file list and select files then tap **SHARE** > **SmartShare Beam**.
  - ▶ When the confirmation window appears, tap **OK**.
2. Select a device from the list of nearby devices that support SmartShare Beam.
  - ▶ The file is sent to the device.

### Using nearby devices

You can play images, music, and videos saved on a connected device from your device.

1. From the **Gallery** or **Music** app, tap the app's **Menu icon**  > **Nearby devices** .
2. Select a device from the device list.
  - ▶ If the desired device is not seen on the device list, check that the DLNA function is turned on, then tap **Search nearby devices**.
3. Play content saved on the selected device.

## Placing and Ending Calls

The Phone app allows you to dial phone numbers manually or make calls from your phone's memory. Manually dial calls using the Dial tab. Dial from your phone's memory using the Recent tab, the Contacts tab, or the Groups tab.

### To open the Phone app

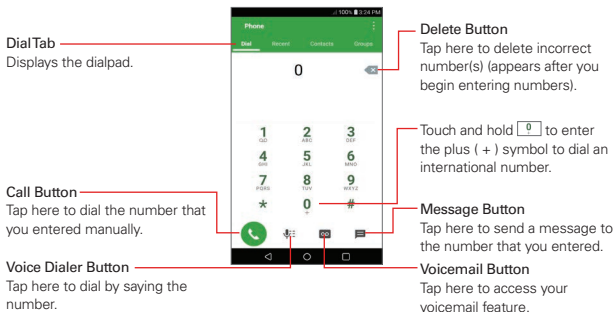
- ▶ Tap the **Home button**  > the **Phone icon** .

### Moving between the Phone app tabs


Tap any of the Phone app tabs (Dial, Recent, Contacts, and Groups) at the top of the screen to view that tab. You can also swipe the screen horizontally to scroll to the other tabs. The current tab is displayed with an underlined white line.

### To place a call by dialing



1. Tap the **Home button**  > the **Phone icon**  > **Dial tab**.





2. Use the dialpad to enter the number you want to call.

- ▶ Tap the **Delete button**  to erase digits one by one (or touch and hold it to erase the entire number).



- ▶ To dial an international number, touch and hold  to enter the plus (+) symbol. Then enter the international prefix for the country, followed by the full phone number.
3. Tap the **Call** button  (on the dialpad) to dial the number that you entered.
- ▶ Press the **Volume** buttons to adjust the call volume.
  - ▶ Use the on-screen buttons to enter additional numbers, add another call, use the speakerphone, end the call, and other options.
  - ▶ You can use other phone features while the call is underway (however you can't use mobile data during a call). If you open another app, the **Ongoing call** portal appears on the screen for the duration of the call to easily navigate back to the Call screen.

**NOTE**

If you opened other apps while on a call, return to the Call screen or open the Notifications panel to end the call. To return to the Call screen, simply tap the **Ongoing call** portal or tap the **Home button**  > **Phone icon** . You can also drag the Status Bar down to open the Notifications panel, then tap the Current call notification.




You can make high-definition voice and video calls, and surf the web while you talk on the phone, when you add Advanced Calling to your line.

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





**To end a call**

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


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

- ▶ Tap the **Ongoing call** portal.
- ▶ Tap the **Home button** , then tap the **Phone icon** .
- ▶ Drag the Status Bar down, then tap  **End** in the Current call notification.

**NOTE**



You can also press the **Power/Lock button**  to end the call, if you activated this feature in the Call settings (tap the **Home button**  > **Phone icon**  > **Menu icon**  > **Call settings** > **Answer and end calls** > **End call with the Power key** to enable this function).

### Calling numbers in your phone's memory

You can place calls using information stored in your phone. Anywhere you see a **Call** icon  next to a number, tap it to automatically dial it.

### Speed dialing


If you set up Speed dials in the **Contacts** app, you can dial a number by simply touching and holding the Speed dial number on the dialpad.

- ▶ Tap the **Home button**  > the **Phone** icon  > **Dial** tab, then touch and hold the Speed dial number (tap the first number, then touch and hold the second number for 2-digit speed dials).

### Direct dialing

A Direct dial widget is like a speed dial button on your Home screen. Tap it to automatically call the number you set (for example, your home phone number).

#### To place a Direct dial widget on your Home screen

1. Touch and hold an empty area on your Home screen.
2. Tap the **Widgets** icon .
3. Tap **Contacts** and then touch and hold **Direct dial** and drag it to the desired location on the Home screen.
4. Tap the contact in your Contacts list.

## Answering or Rejecting Calls

When you receive a phone call, the Incoming call screen opens with the caller ID and any additional information about the caller that you've saved in the contact's entry. All incoming calls are recorded in the Recent tab.

### To answer a call

- ▶ Drag  **Answer** in any direction to answer the call.

**NOTE** To silence the incoming call ringer, press either of the **Volume** buttons.




### To ignore a call and divert it to Voicemail

- ▶ Drag  **Ignore** in any direction to ignore the call.

**NOTE** To silence the incoming call ringer, press either of the **Volume** buttons.

### To ignore a call and send a text message

To display the Ignore with message option on the Incoming call screen, enable it in the Phone app's Call settings menu.

1. Tap the **Home button**  > the **Phone icon**  > the **Menu icon**  > **Call settings**.
2. Tap **Call blocking & Ignore with message** > **Allow ignore with message** switch to toggle it On (blue).



**TIP** Tap **Allow ignore with message** to manage your text message choices.

**NOTE** This feature can only be used to send a message to another mobile phone. It's not applicable to incoming landline calls.

## Working with the Recent Tab





The Recent tab records all of the calls you've dialed, received, missed, or ignored. It offers a convenient way to redial a number, return a call, or add a number to your Contacts.

### To open the Recent tab


- ▶ Tap the **Home button**  > the **Phone icon**  > the **Recent tab**, if necessary.

The Recent tab lists your calls chronologically by phone number and call type. The number in parenthesis indicates the number of calls recorded for that phone number and type.

### Viewing call entry details


Open the **Recent tab**, then tap an entry to view all of the entries for that phone number and call type. Each one includes the call type (received , dialed , missed , and ignored ) , the date and the time of the call.


### Filtering your list of calls

To view a specific call list, from the **Recent tab**, tap the **Menu icon** , then tap **Default screen**. Tap the call type you want to view.

Tap the **Back button**  to return to the Recent tab screen.


## To dial a number in the Recent tab

- ▶ From the Recent tab, tap the **Call** icon  at the right of the call entry.
- ▶ From the Recent tab, tap the image to the left of the call entry to view other information saved in your phone's memory for that contact. Tap a phone number to dial it.

**TIP** To insert an area code when you're traveling, touch and hold the entry, then tap **Copy number** in the context menu. Change to the **Dial** tab, touch and hold the phone number field, tap **PASTE**, then edit the number as necessary before tapping the **Call** button .

## Clearing your Recent calls

You can delete the entire list of Recent calls at once or selectively delete entries.

1. Open the **Recent** tab.
2. Tap the **Menu** icon .
  - ▶ Tap **Clear** to select entries to remove from the list. Checkmark the entries to delete, tap **CLEAR**, then **CLEAR**.
  - ▶ Tap **Clear all** to remove all of the entries from the list. Tap **CLEAR** to confirm you want to delete the entire list.



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

## Calling Your Contacts


Instead of manually dialing phone numbers using the dialpad, you can use your Contacts list to dial quickly and easily.

If you have contacts on the web, they're synchronized with your phone when you first synchronize with your Google™ Account.

### To call a contact

1. Tap the **Home button**  > swipe left, if necessary > tap the **Contacts** icon .
2. Tap the contact you want to call, then tap the contact's phone number you want to call.


#### TIP

If the entry only has one phone number saved, simply tap the **Call** icon  next to the entry to dial it.


### Instant List

Instant list is displayed on the Dial tab to help you use the information stored in your phone without needing to search for it first. Once you begin entering numbers, Instant list displays entries from your Contacts list or Recent calls that match the sequence you entered.

### Sequence matches

Your phone searches for the entered sequence within your stored phone numbers. The matching number sequence is displayed within the number in blue text. The name and type of number (i.e., Mobile, Work, etc.) associated with the number you entered is displayed above the dialpad. When there are multiple matches, the Instant list displays the number of matches in your phone's memory. Tap the **Instant list** icon  on the right side of the screen to view the entire list of matching entries.

### Selecting an Instant list entry

Tap an entry in the Instant list to insert it in the phone number field, then tap the **Call** button  to dial it.

## Options During a Call

### Add Call

Tap here to add a call to the current conversation.

### Camera

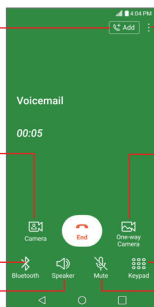
Tap here to switch to a video call.

### Bluetooth

Tap here to switch between using a Bluetooth device and the phone.

### Speaker

Tap here to turn the speakerphone on or off.



### Settings

Tap here to access additional in-call options

### One-way Camera

Tap here to share your camera.

### Keypad

Tap here to display the keypad.

### Mute

Tap here to mute the microphone during a call.

### NOTE

Tap the **Menu** icon  on the Call screen to access Contacts.

## Managing Multiple Calls



Contact your wireless service provider to find out which call services are supported.

### To switch between current calls



The current call will be placed on hold and you'll be connected with the other call.

### To set up a conference call

Contact your wireless service provider to find out whether they support conference calls and how many participants you can include.



1. Place a call to the first participant.
2. When you're connected, tap the **Add call** button  on the Call screen.
3. Enter a phone number.
  - ▶ Use the **Phone** app tabs to select a saved number, then tap the **Call** icon .

### OR

- ▶ Use the buttons on the dialpad to manually enter a number, then tap the **Call** button .
4. After you're connected, tap the **Merge calls** button  on the Call screen. The participant is added to the conference call and the Call screen indicates a conference call is active.






## Listening to Your Voicemail

When you have a new voicemail message, the Voicemail notification icon  appears in the Status Bar. If you haven't set up your voicemail number, or if you need to change it, you can do that in the Call settings. Tap the **Menu** icon  in the Phone app (from the Dial tab or the Recent tab).




### To listen to your Voicemail

- ▶ Open the Notifications panel and tap the **New voicemail** icon .

OR



- ▶ Tap the **Home button**  > swipe left, if necessary > tap the **Verizon** folder  > **Voicemail** .

OR

- ▶ Tap the **Home button**  > the **Phone** icon  > the **Dial** tab > the **Voicemail** button .

### To set up your Voicemail

Typically, your carrier's voice mail system guides you through the process of listening to and managing your voicemail. The first time you call your voicemail, it also guides you through the process of recording greetings, setting a password, etc.



1. Tap the **Home button**  > the **Phone** icon  > the **Dial** tab.
2. Dial \*86 on the dialpad to call to your voice mailbox.
3. Follow the setup tutorial.
  - ▶ Enter a password.
  - ▶ Record a voice signature and greetings for your voice mailbox.

## Contacts

The Contacts app allows you to store names, phone numbers, and other information in your phone's memory. Entries are listed alphabetically. You can scroll through the list or select the Groups tab.

Use the Contacts app to add, view, and communicate with your friends, acquaintances, and associates.

### To open your Contacts app

- ▶ Tap the **Home button**  > swipe left, if necessary > tap the **Contacts icon** .

**NOTE** You can also tap the **Contacts** tab from the **Phone** app.




If you don't have any contacts in your Google Account or on your SIM card, hints will be displayed to help you start adding contacts to your phone.

### Contacts list

When you open the Contacts app, your contacts list is displayed. The alphabet is displayed vertically along the right side of the screen. You can drag along it or tap the letter you want.



In Case of Emergency contacts is displayed above your list of contacts. Add up to 5 emergency entries from your contacts list. These are entries that someone can contact on your behalf in the event of an emergency, whether or not the phone is locked.

### To add ICE entries



1. Tap the **Home button**  > swipe left, if necessary > tap the **Contacts icon** .
2. Tap **In Case of Emergency contacts** (at the top of the list).
3. Tap the **Add entry icon** .
4. Checkmark the entry (or entries) to add to your ICE list, then tap **ADD**.

## ICE Information

In addition to your emergency contacts, you can enter personal information about you (such as health record, allergies, medications, special instructions, etc.) that can be accessed in case of an emergency. To add your personal information:


1. From the emergency contacts screen, tap the **Information** icon .
2. Tap the **Add** icon , enter your information, then tap **SAVE**.

## To search for a contact

1. Tap the **Home button**  > swipe left, if necessary > tap the **Contacts** icon .
2. Tap the **Search contacts** box and enter the contact name. Matches are displayed as you begin to type.

## Searching your online contacts simultaneously

You can search for your contacts simultaneously from all of your online accounts.


To set your phone to search simultaneously, open the **Contacts** app, tap the **Menu** icon  > **Contacts settings** > enable the **Online search** switch.

## To open your groups list

- ▶ Open the **Contacts** app and tap the **Groups** tab.

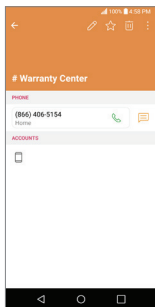
Groups displays your contacts by category (at the top of the screen) and your accounts (at the bottom of the screen).





### NOTE

Tap the **Menu** icon  from the Groups tab to access **Share**, **Change order**, **Default screen**, and **Contacts settings**.

### To view details about a contact

1. Open the **Contacts** app.
2. Tap the contact whose details you want to view.




3. The information you entered for the contact is displayed. The following options are available (depending on the types of information saved).
  - ▶ The **Dial** icon  places a call to the number.
  - ▶ The **Message** icon  starts a message.
  - ▶ The **Email** icon  starts an email.
  - ▶ The **Menu** icon  accesses the following menu options: **Share**, **Forward**, **Merge**, **Back up**, and **All calls to voicemail**.

### Adding Contacts


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

Since your contacts can come from a variety of sources, the Contacts app attempts to join new information with existing similar contact entries to create a single entry. You can also manage that process manually by joining or separating entries.


## To add a new contact

1. Open the **Contacts** app.
2. Tap the **New contact** icon .
3. Tap the Accounts field to select the where you want to save the contact, if necessary.

**NOTE** To change the account later, edit the entry, tap the account, then tap the account you want it assigned to.


4. Enter the contact's name.
5. Tap a category of contact information, such as phone number or email address, to enter that kind of information about your contact.
  - ▶ Tap a category's contact information to add more than one entry for that category. For example, in the phone number category, enter a work number and add a home number. Tap the label field to the right of the entered information to open a drop-down menu of preset labels. For example, **Home**, **Work** or **Other** for a phone number.
  - ▶ Tap **More** to add additional fields.
6. Personalize the contact entry.
  - ▶ Set the group this contact belongs in.
  - ▶ Set a ringtone to identify calls from this contact.
  - ▶ Set a message alert sound to identify notifications from this contact.
  - ▶ Tap the **Image** icon  to select a picture to identify the name in your list of contacts and in other apps.
7. When you're finished, tap **SAVE**.

## Editing a Contacts entry


1. Open the **Contacts** app, then tap the contact entry you want to edit.
2. Tap the **Edit** icon .
3. Edit the entry as needed, then tap **SAVE**.

### Merging and separating contacts

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


1. Open the **Contacts** app, then tap the contact entry you want to join with another entry.
2. Tap the **Menu** icon , then tap **Merge**.
3. Select the entry you want to merge.

Once entries have been merged, **Separate** is included in the options menu to allow you to separate the joined entries.

1. Open the **Contacts** app, then tap the contact entry you want to separate.
2. Tap the **Menu** icon , then tap **Separate**.
3. Tap **SEPARATE** to confirm.


### Setting Speed Dials

#### Designating multiple speed dials

1. Open the **Contacts** app, then tap the **Menu** icon .
2. Tap **Speed dial**.
3. Tap the speed dial number to assign, then tap the Contact entry for it.
4. Repeat selecting a speed dial number and the desired Contact entry as necessary.



### Transfer type

When you want to send your contacts entries, you can combine them all into one file or you can send separate vCard files.




To set the transfer type, from the **Contacts** app, tap the **Menu** icon  > **Contacts settings** > **Share contacts as**.

- ▶ **One file** : This setting combines all of your contacts into one file. It allows a faster transfer, but some devices can't receive contact information sent using this option.
- ▶ **Individual files**: This setting sends each contact as a separate vCard file. It allows all devices to receive your files.

## Messaging

Three apps are preloaded on your phone that allow you to send messages: the **Messaging** app , the **Message+** app , but only one can be set as your default messaging app which will enable you to use all of app's features.

### To open the Messaging app

- ▶ Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **Messaging** .

### Using the Messaging app



To use the Messaging features, you must set it as the default messaging app.

**NOTE** You can view your messages in the Messaging app without setting it as your default app, but you can't create a message.

- ▶ Tap the **New message icon**  to start a new text or multimedia message.



Tap here to create a new message.



- ▶ Tap an existing message thread to open it.
- ▶ Tap the **Delete icon**  to delete message threads.
- ▶ Tap the **Menu icon**  to access **Search** and **Settings**.

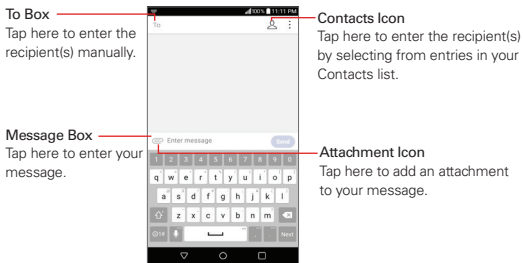
**NOTE** Pinch in (or spread apart) on your list of messages to resize it for easier viewing or navigation.



### To delete a message thread from the Messaging window

1. Touch and hold the message thread.
2. Tap **Delete** in the context menu that opens.
3. Tap **DELETE** to confirm you want to delete the message thread.

### To send a text message

1. Open the **Messaging** app (set it as your default, if necessary), then tap the **New message** icon .
2. Enter the recipient(s) in the **To** box.
  - ▶ Tap the **Contacts** icon , select one or more entries from your Contacts list, then tap **DONE**.
  - ▶ Enter a name (or a partial number), then tap a suggestion displayed from your Contacts list.
  - ▶ Enter a number manually for phone numbers not in your Contacts list.
3. Tap the message box, then enter your message.







If you tap the **Back** button  while composing a message, it's automatically saved as a draft. The **Draft** icon  on the right side of the message thread indicates a pending draft message to the recipient. Tap the message thread to resume composing it.

4. Tap the **Send** button to send the message.  
Your message is displayed and responses appear in the same window, creating a message thread with that contact.



## To create and send a multimedia message

1. Open the **Messaging** app (set it as your default, if necessary), then tap the **New message** icon .
2. Enter the recipient(s) in the To box.
  - ▶ Tap the **Contacts** icon , select one or more entries from your Contacts list, then tap **DONE**.
  - ▶ Enter a name (or a partial number or email address), then tap a suggestion displayed from your Contacts list.
  - ▶ Enter a number or email address manually.
3. Tap the message box, then enter your message.
4. Tap the **Menu** icon  > **Add subject** to add a message subject.

The subject text appears above the body text in bold letters.
5. Tap the **Attachment** icon  to open a dialog box where you can choose the type of media file to attach to the message.

**NOTE** To delete an attachment, simply tap the **Delete** icon  on the attached file.


6. Tap the **Send MMS** button.

## Receiving and viewing messages

If you're working in a message window, messages that you receive from that contact is displayed. Otherwise, you'll receive a new message notification based on the **Notification** setting.

- ▶ If the **Show in** setting is set to **Second screen**, the notification will appear briefly on the Second screen that you can tap to open the message or you can open the Notifications panel to view the new notification.
- ▶ If the **Show in** setting is set to **Pop-up**, you'll receive a pop-up notification on the current screen which you can use to directly reply.
- ▶ If the **Show in** setting is set to **Notification Panel only**, the notification will only be displayed in the Notification panel.


If the message contains a media file, tap the **Play** button to view, watch, or listen to it. Touch and hold the media file to open a context menu with additional options.

**TIP** While viewing a message thread, you can tap the **Call** icon  to place a call instead of sending a message.

### To respond to messages you receive

While viewing the received message, tap the message box at the bottom of the screen, complete your response as necessary, then tap the **Send** button.

### Changing Messaging Settings

- ▶ To change the Messaging settings, open the **Messaging** app (set it as your default, if necessary), tap the **Menu** icon  > **Settings**. Messaging settings include setting notifications, quick reply text, storage, link & send, and more.

## Email

The following account types are supported: Microsoft Exchange, Outlook, Yahoo! Mail, AOL Mail, Verizon, and other accounts.

### To open the Email app


- ▶ Tap the **Home button**  > swipe left, if necessary > tap **Email** .

The first time you open the Email app, a setup wizard opens to help you add an email account. After the initial setup, the Email app displays the contents of your Inbox.

**NOTE** You can also add your email account(s) using the **Accounts** menu in the **Settings** app.





### The Accounts list

The Menu displays all of your email accounts.

Open the **Email** app. Tap the **Email Menu** icon  to display a list of all of your email accounts and folders. You can also swipe horizontally from the left side of the screen to open the Email Menu to view your Accounts list.

- ▶ Each account name is displayed in an identifying color. Tap an account to toggle between displaying and hiding its folders. The number of unread mail is displayed next to each account's Inbox.

### Using the Email app

- ▶ Tap the **Compose** icon  to compose a new message.
- ▶ Tap the **Email Menu** icon  to switch between your email accounts and folders.
- ▶ Touch and hold a message, then you can tap **MARK AS READ/UNREAD**, **MOVETO**, or **DELETE**. You can also tap the **Select all** icon  to select all of your messages at once, then tap the action to apply to all of them.
- ▶ Swipe a message off the screen to the left or right to delete the message.
- ▶ Tap the **Menu** icon  to open the options menu to access **Sort by**, **QSlide**, and **Settings**.
- ▶ Drag downward from the top of the Inbox list to refresh the list.

## Message search

Tap the **Search** icon 🔍, enter the text you're looking for, then tap one of the displayed results.

## Reading Your Email

You can read your email from the Inbox, or from other folders within each individual account. Tap a message entry to open it.

**NOTE** If you enable the Split view setting, the Email app is displayed in a split-screen format when the phone is held horizontally. Your Inbox (or any other selected folder) is displayed on the left side of the screen. Tap an email to open and display its contents on the right side of the screen.

### To read an email

When viewing the combined view for your Inboxes, the color displayed to the left of each message corresponds with each account's identifying color.

1. Open the **Email** app, then tap the **Email Menu** icon ☰.
2. Tap **Inbox** under **Combined view** to display all of your messages from all of your accounts together or tap **Inbox** under the account you want to view.

### To add an account

- ▶ From the **Email** app, tap the **Menu** icon ⋮ > **Settings** > **Add account**. Then, configure the new email account settings as necessary.

### Changing Email settings

- ▶ To change the Email settings, open the **Email** app, tap the **Menu** icon ⋮ > **Settings**.

## Other Settings

The **Other Settings** menu includes the following options: **Preview**, **Split view**, **Save to**, **Ask before deleting**, **Auto-advance**, and **Load images**.

## Accounts




Tap an account in the list to modify the settings that apply only to that account including **Account name**, **Signature**, **Edit signature**, **Notifications**, **Notification sound**, **Vibrate**, **Auto-sync email**, **Sync schedule**, **Default email size**, **Always Cc/Bcc me**, **Incoming server settings** and **Outgoing server settings**.

## Voicemail


The Voicemail app allows the management of voicemail directly from the phone rather than accessing voice mail via traditional methods.

Voicemail can display a list of your messages allowing you to choose which message(s) to listen to or delete, without having to dial into your mailbox and listen to voice instructions or prior messages.


### To be able to use Voicemail

1. Tap the **Home button**  > swipe left, if necessary > tap the **Verizon** folder  > **Voicemail** .

**NOTE**

Listening to voicemail and setting up your voicemail service depends on subscription to the Visual Voicemail service. When you tap the Voicemail button  on the dialpad, and you've subscribed to the Visual Voicemail service, the Visual Voicemail app will be launched.

2. The first time you access the Voicemail app, you'll have to subscribe to the Visual Voicemail service to be able to use it.
3. After subscribing to the Visual Voicemail service, you'll be prompted to enter the password. To change the password, call voicemail (dial \*86).
4. After entering the password, your voicemail entries will be displayed in your Inbox.

While viewing the voicemail list, you can select an entry (see step 5). For additional options, tap the **Menu icon** . The following options are available: **Search, Save, Set as heard, Sort by, Saved Voicemail, Refresh,** and **Settings**.

5. Tap a voicemail entry to listen to it.


## Camera

You can use the Camera app to take and share pictures and videos. Your phone has an integrated standard camera and wide-angle camera that lets you capture sharp pictures and videos. It has many state-of-the-art features such as gesture shots, interval shots, burst shots, still photo capture while recording video, and much more. These features will allow you to easily and creatively capture your world.

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

### To open the Camera app





▶ Tap the Home button  > Camera .

**TIP** With the backlight off, press the **Volume Down** button  twice to immediately activate the Camera app (when enabled in the Settings app).

- NOTES**
- If the battery level is lower than 5%, charge the battery before using the camera.
  - Before taking a photo or recording a video, wipe the camera lens with a microfiber cloth. If your finger comes into contact with the camera lens, you may get blurry photos.
  - Images included in this user guide may be different from the actual device.
  - Photos and videos can be viewed or edited from the Gallery app.

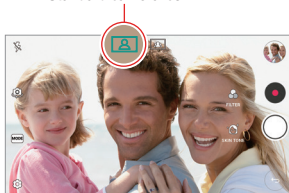
## Wide-angle camera

You can take photos or record videos with a wider range than your actual field of vision using the wide-angle on the front and back camera.

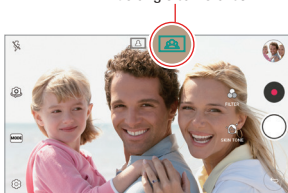
Tap the **Standard** icon (  /  ) or the **Wide-angle** icon (  /  ) to switch between the standard and wide-angle camera.

### Front camera

Standard camera icon

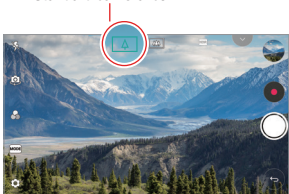


Wide-angle camera icon

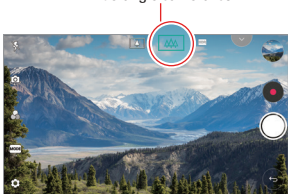


### Rear camera

Standard camera icon



Wide-angle camera icon



Pinch-to-zoom will also switch between the standard and wide-angle lenses.

- ▶ On the camera screen, zoom in or out with your two fingers. As you zoom, the lens icon will automatically switch based on the corresponding lens/zoom levels, or you can use the displayed +/- slide bar to switch between the normal and wide-angle camera.


#### NOTE

The zoom feature is not available when using the front camera in selfie mode.







## Switching between cameras

You can switch between using the front and back camera.

On the camera screen, tap the **Lens Swap** icon  or swipe the screen in any direction to switch between the front and back camera.

## Tracking focus while using the camera


You can track and maintain focus on an object while taking photos or recording video.

1. Launch the **Camera** app, then tap **AUTO** , **MANUAL**  or **MANUAL**  > **Settings**  > **Tracking focus**.
2. Before recording a video or taking a photo, lightly tap the screen to select the object you want to focus on.



3. Take the photo or start recording your video.

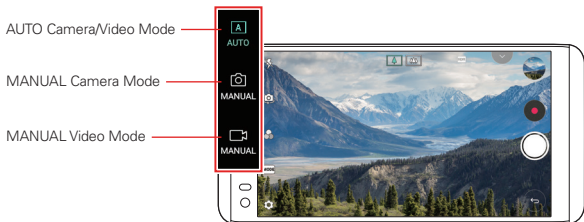
### NOTES

- To use this feature, select the standard camera  for recording a video.
- This feature is unavailable when you use the front camera or the wide-angle camera.
- Tracking focus is unavailable in the following cases:
  - Video size limitation: Resolution is set as UHD 16:9.
  - FPS limitation: 60 FPS.

## Changing the camera mode



You can select a camera mode that suits your environment and subject to take a photo or record a video easily and conveniently.

Launch the **Camera** app, then select the desired camera mode from the Second screen.



## Auto camera mode

You can select from a variety of camera modes and options to take your photos and record videos.

1. Launch the **Camera** app, then select **AUTO** mode from the Second screen.
2. To take a photo, tap the **Capture** button . To record a video, tap the **Record** button .

**Film Effect** – Apply a film filter effect.

**Lens Swap** – Switches between the rear-facing camera lens and the front-facing camera lens.

**Flash** – Indicates the current flash mode. Tap it to toggle through the flash modes.

**Standard** – Activates the standard rear camera.

**Wide-Angle** – Activates the wide-angle rear camera.



**Gallery** – Accesses your Gallery to view your saved photos and videos. Tap it to display the last photo or video you captured.

**Record** – Starts recording a video.




**Capture** – Takes a picture.




**Back** – Closes the Settings or exits the Camera app.

**Settings** – Displays the settings for the Auto camera mode. See **Customizing camera options**.






**Shot Mode** – Displays the shot modes which sets how you want the picture taken. The current selection is blue. See **Specialty Shots** on pages 88-92.

### Taking a photo

1. Select a camera mode, and tap the subject to focus the camera on it.
2. Tap the **Capture** button  to take a photo.
  - ▶ You can also press the **Volume Down**  or **Volume Up**  button to take a photo.

**NOTE** When the screen is turned off or locked, start the camera by pressing the **Volume Down**  button twice. Tap the **Home Button**  > **Settings**  > **Extensions** > **Shortcut keys** and enable the **Shortcut keys** switch.

### Recording a video

1. Select a camera mode and tap the subject to focus the camera on it.
2. Tap the **Record** button 
  - ▶ To take a photo while recording a video, tap the **Capture** button .
  - ▶ To pause the recording, tap the **Pause** button . To resume the recording, tap the **Resume** button .
3. Tap the **Stop** button .

### Customizing the camera options

You can customize a variety of camera options to suit your preferences.

Tap **Settings**  on the camera screen.

**NOTE** Available options vary depending on the selected camera (front or back camera) and the selected camera mode.

<b>Photo size</b>	Sets values for aspect ratio and size for taking photos.
<b>Video resolution</b>	Sets values for resolution and size for recording videos.
<b>HDR</b>	Sets compensation effects to produce photos and videos in vivid colors, even when they are taken against the light. These functions are provided by the high dynamic range (HDR) technology equipped in the device's camera.
<b>Timer</b>	Sets the timer to automatically take photos after a specified period of time.
<b>Cheese shutter</b>	Enables taking photos with voice commands.
<b>Tracking focus</b>	Enables the camera to remain focused on the subject you touch on the screen, even if the subject is moving. (Available when the Standard is in use.)
<b>Steady recording</b>	Stabilizes the video image to minimize motion blur.
<b>Tag locations</b>	Saves the image with GPS location data.
<b>Grid</b>	Displays guide grids so that you can take photos or record videos based on the horizontal and vertical reference lines.
<b>Storage</b>	Sets where images are saved (internal or external storage when a memory card is inserted.)
<b>Simple view</b>	Hides all menus from the camera screen.
<b>Help</b>	Provides help information for each camera menu.

### Additional options on the front camera




<b>Selfie shot</b>	Sets how you want to take your selfies (Gesture or Auto). Available from the front-facing lens only.
<b>Gesture view</b>	Allows you to check your selfie shot immediately after taking it. Available from the front-facing lens only.
<b>Save as flipped</b>	Enables the selfie to be saved as a mirror image of the screen view. Available from the front-facing lens only.

### Specialty Shots

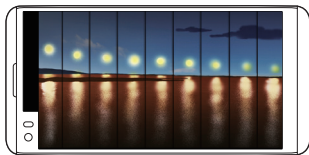
You can take various specialty shots while using the rear-facing camera in Auto camera mode. Tap **MODE** to access a variety of shot options to capture images.

#### Time-lapse

You can take a sequence of frames at set intervals to record changes that take place slowly over time, such as cloud movements, celestial motions, traffic, and more.

1. In AUTO mode, tap **MODE** > the **Time-lapse** icon .
2. Tap the **Record** button  and record a video.
3. Tap the **Stop** button  to end the video recording.

**NOTE** While recording a Time-lapse video, voices are not recorded.

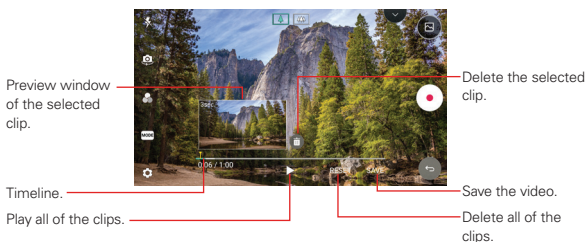


## Snap movie

You can record short videos clips and assemble them into a 60-second short film.

1. In AUTO mode, tap **MODE** > the **Snap movie** icon .
2. Tap the **Record** button .

- ▶ Tap the icon once to record a three-second video clip. Touch and hold the icon to create a longer video clip (maximum length: one minute).






- ▶ Tap a video clip section on the timeline to display it in the preview window.

3. Tap **SAVE**.

## Panorama

You can create a panoramic photo by moving the camera in one direction to photograph and automatically combine continuous shots for a wide view photo.





1. In AUTO mode, tap **MODE** > the **Panorama** icon .
2. While holding the device in portrait orientation, tap the **Capture** button  and then slowly move the camera in one direction.
  - ▶ Move the device by following the direction of the arrow in the guideline.
3. Tap the **Stop** button  to stop capturing the panoramic.





## Popout




You can take a photo or record a video using both the standard and wide-angle cameras to record the scenes as if they were put in a frame. The scenes shown in the small, interior screen are shot using the standard camera, and the scenes shown in the large, background screen are shot using the wide-angle camera. Change the Pop-out picture layout and/or apply various effects to take a creative photo or video.

1. In AUTO mode, tap **MODE** > the **Popout** icon .
2. Tap the **Layout** icon  and select the desired layout.
3. Tap one or more effects to apply to the Popout picture background (the icon turns blue when selected).
  - ▶ **Fisheye**: Apply a convex lens effect to the area captured by the wide-angle camera.
  - ▶ **B&W**: Apply grayscale to the area captured by the wide-angle camera.
  - ▶ **Vignette**: Darken the edges of the area captured by the wide-angle camera.
  - ▶ **Lens blur**: Blur the area captured by the wide-angle camera.
4. Tap the **Capture** button  to take a photo. To record a video, tap the **Record** button .



## Slo-mo









You can create an entertaining video by changing the moving speeds of subjects in your video. This feature allows you to record a video at a faster rate of speed and then play it at normal speed so that the video appears to be slowed down.

1. In AUTO mode, tap **MODE** > the **Slo-mo** icon .
2. Tap the **Record** button  and record a video.
3. Tap the **Stop** button  to end the video recording.




## Multi-view recording


You can take multiple photos or videos in the form of a collage using the front and back cameras. There are a variety of collage layouts to choose from allowing you to combine photos and videos in the same Multi-view collage.

1. In AUTO mode, tap **MODE** > the **Multi-view** icon .
2. Tap the **Multi-view layout** icon  and select a layout.
3. Tap the **Capture** button  to take photos or tap the **Record** button  to record a video for each of the collage sections in the sequence indicated on the screen.
  - ▶ To cycle between the available lenses for each collage frame, swipe inside the frame (up/down or left/right). The lens changes each time you swipe (e.g., front standard to front wide-angle to back standard to back wide-angle, etc.).
  - ▶ Touch and hold the **Capture** button  or the **Record** button  to automatically activate each collage frame at specific intervals using the selected input (capture or record).
  - ▶ Tap the **Sequential** icon  to take photos and record videos sequentially according to the collage layout or tap the **Simultaneous** icon  to activate all of the collage frames for simultaneous input.

## Burst shot

You can take continuous shots to create the illusion of moving pictures.

In AUTO mode, touch and hold the **Capture** button .


- ▶ Continuous shots are taken at a fast speed while the **Capture** button  is held down.

## Simple view

In Auto mode, tap the **Settings**  > **Simple view** to hide the menus on the camera screen. Tap the **Redisplay** icon  to display them again.

## Manual camera mode

You can create professional level photos using a variety of advanced features. Adjust the white balance, focus, brightness, ISO, shutter speed and other options.

1. Launch the **Camera** app, then select the **MANUAL** icon  on the Second screen.



2. Manually adjust the following camera settings, as necessary.



- Adjust white balance. 
- Adjust focus. 
- Adjust brightness. 
- Adjust exposure level. 
- Adjust shutter speed. 
- Adjust ISO speed. 

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

## Customizing the camera options


You can customize a variety of camera options to suit your preferences.

Tap **Settings**  on the screen.


<b>Photo size</b>	Sets values for aspect ratio and size for taking photos.
<b>Timer</b>	Sets the timer to automatically take photos after a specified period of time.
<b>Cheese shutter</b>	Enables photos to be taken with voice commands.
<b>Tracking focus</b>	Enables the lens to remain focused on the subject you touch on the screen, even if the subject is moving. (Available when the Standard lens is in use.)
<b>Tag locations</b>	Saves the image with GPS location data.
<b>Guide</b>	Displays guides so that you can take photos or record videos based on the reference lines.
<b>Save as RAW</b>	Stores the image as a RAW file format so that you can modify it. The DNG file is created while taking a photo, then saved as a non-compressed high resolution image.
<b>Storage</b>	Sets where the images are stored (internal or external storage when a memory card is inserted.)
<b>Noise reduction</b>	Reduce noise at high ISO settings.
<b>Help</b>	Provides help information for each camera menu.

## Manual video mode

You can record a video by manually customizing various options. Adjust values for the white balance, focus, brightness, ISO, shutter speed and more.

1. Launch the **Camera** app, then select the **MANUAL** icon  on the Second screen.



2. Manually adjust the camera settings, as necessary.
3. Tap the **Record** button  to record a video.

## Customizing the camera options





You can customize a variety of camera options to suit your preferences.

Tap **Settings**  on the screen.

<b>Video resolution</b>	Sets values for aspect ratio and size for videos.
<b>Frame rate</b>	Sets the frames per second value.
<b>Bit rate</b>	Sets the image quality for videos.
<b>Hi-Fi</b>	Records a video with Hi-Fi quality sound.
<b>Timer</b>	Set the timer to automatically take photos after a specified period of time.
<b>Steady recording</b>	Stabilizes the video image to minimize motion blur.
<b>Tracking focus</b>	Enables the camera to remain focused on the subject you touch on the screen, even if the subject is moving. (Available when the standard camera lens is in use.)
<b>Tag locations</b>	Saves the image with GPS location data.
<b>Grid</b>	Displays guide grids so that you can take photos or record videos based on the horizontal and vertical reference lines.
<b>Storage</b>	Sets where to save the images (internal or external storage when a memory card is inserted).
<b>Help</b>	Provides help information for each camera menu.


## Steady recording

You can use the Steady recording feature to minimize motion blur while recording a video.

Launch the **Camera** app, then tap the **AUTO** icon  or the **MANUAL** icon  > the **Settings** icon  > **Steady recording** .

## Hi-Fi video recording

Record high quality videos while capturing higher quality sound with a wider dynamic frequency range using 3 sensitive AOP (Acoustic Overload Point) mics and incredible Hi-Fi recording.

Launch the **Camera** app, then tap the **MANUAL** icon  > the **Settings** icon  > **Hi-Fi** .

**NOTE**

Hi-Fi videos can only be played in apps that support Hi-Fi.



## Selfie shot

You can use the front camera to view your face on the screen and take selfies. The camera settings allow you to set how selfies are taken.

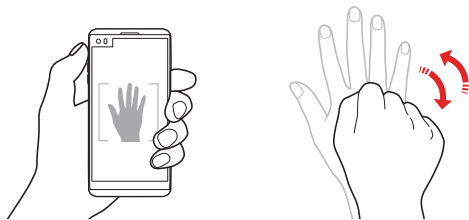
## Gesture shot

You can take selfies using gestures.


Show your palm to the front camera and then clench your fist.

You can also clench your fist and then open it towards the front camera.

► In three seconds, a photo is taken.



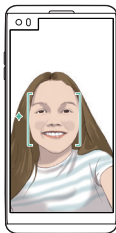
### NOTES

- To use this feature, switch to the front camera, then tap the **Settings** icon  > **Selfie shot** > **Gesture shot**.
- Make sure that your palm and fist are completely within the recognition area so that the camera can detect them.
- This feature may not be available while using some of the camera features.

## Auto shot

You can use the face detection feature to take selfies easily and conveniently. You can set the device so that, when you look at the screen, the front camera detects your face and takes a selfie automatically.


- ▶ The white colored guide frame appears when the front camera detects your face. If the subject within the guide frame stops moving, the guide frame color turns blue, then the camera takes a photo.



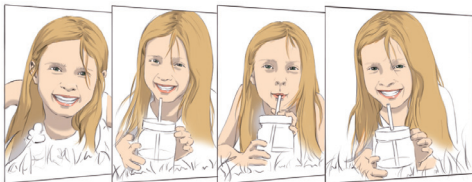
**NOTE** To use this feature, switch to the front camera, then tap the **Settings** icon  > **Selfie shot** > **Auto shot**.

## Interval shot

You can take continuous selfies.

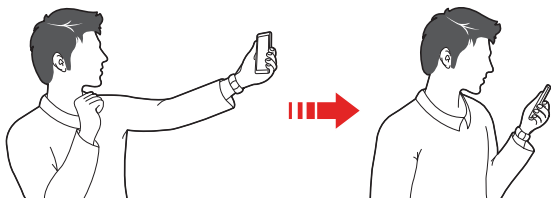
While using the front camera, touch and hold the **Capture** button . You can also show your palm to the camera, then clench your fist twice quickly.

- ▶ After a short timer delay, four photos are taken at about two-second intervals.




## Gesture view


After taking a selfie with the front camera, you can preview the selfie immediately by moving the screen close to your face.




### NOTES



- To use this feature, switch to the front camera, then tap the **Settings** icon  > **Gesture view** to enable the Gesture view feature.
- Only one preview is available each time a photo is taken.
- If you rotate the device while viewing the preview screen, the screen switches to camera mode.

## Save as flipped

Before taking a photo with the front camera, tap **Settings** icon  > **Save as flipped** to flip the captured image horizontally.

## Quick shot

Quick shot is a shortcut that immediately takes a picture when you press the **Volume Down** button  twice while the phone is in timeout. The picture is taken using the Auto camera mode with the last lens (front or rear) used.

Activate the Quick shot feature in the Settings app. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Extensions** > **Shortcut keys** > enable both the **Quick shot** switch and the **Shortcut keys** switch to enable this feature.

## Other useful features in the Camera app

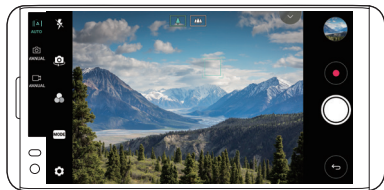
### Zoom lever

You can control the zoom using the Second screen while recording a video.



### AE/AF lock

In AUTO mode, you can fix the current exposure level and focus position. Touch and hold the desired position on the screen to activate it. To turn it off, tap a blank area on the screen.



## Focus peaking

Focus peaking can be used in the **MANUAL camera**  or the **MANUAL video**  mode (selected in the Second screen).

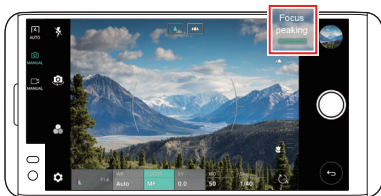
1. Tap **FOCUS** in the manual settings at the bottom of the screen.



2. Use the focus peaking control slide bar on the right of the screen to bring the subject into focus.






- To turn it off, tap **Focus peaking** above the sidebar.



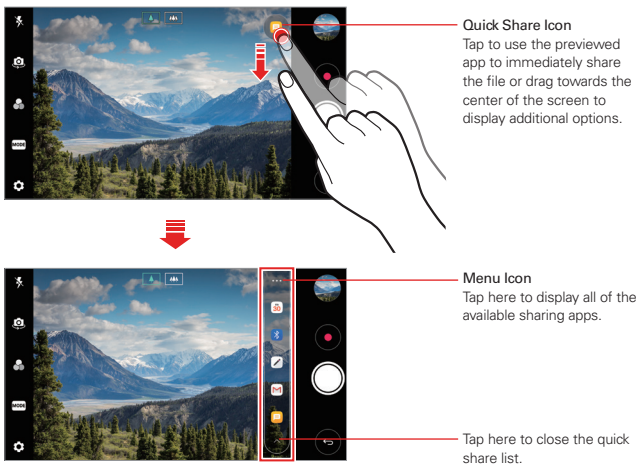
## Quick Share

You can take a picture or record a video and then immediately share it through an app.

1. Tap the **Home button**  > **Camera** , then take a photo or record a video.
2. Tap the **Quick Share** icon that appears on the screen to immediately open its app and use it to share your photo or video. Swipe the icon towards the center of the screen to display the quick share list of your other frequently used sharing apps. You can also tap the **Menu** icon  (in the quick share selections list) to display all of the available sharing apps.

### NOTE

The apps displayed in the quick share list may vary depending on your use of the apps installed on your device. For example, if you frequently use the Messaging app, it will appear as the first quick share choice.




## Gallery

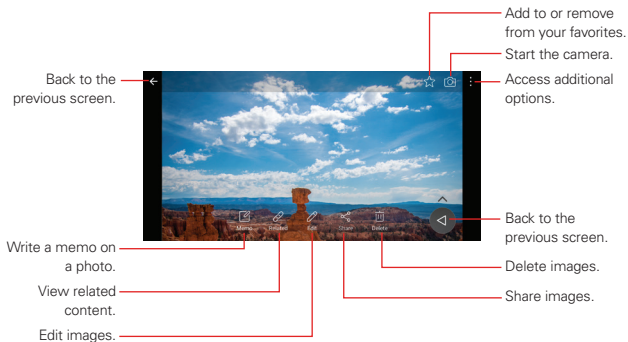
Open the Gallery app to view albums of your pictures and videos.

### To open the Gallery app

▶ Tap the Home button  > Gallery .

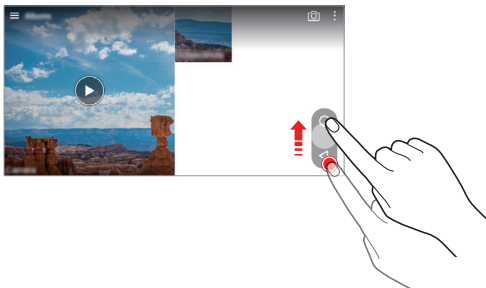
### Viewing photos

1. Tap the Home button  > Gallery .
2. Tap the album you want, then tap the photo you want to view.



## Floating button

To quickly move to the Home screen while viewing the Gallery in landscape orientation, touch and hold the **Back** ◀, move your finger upward to the **Home** ○, and then release it.



**NOTE** You can move the floating button's position by dragging it horizontally along the bottom part of the screen

## Related content

You can edit and customize related content in the Gallery.

1. While viewing a picture preview, tap **Related** 🔗.
2. When the icon related with the date you took the photo appears, touch the screen.





▶ You can view the photos related with the date you chose.








**NOTE** Related contents can be related to up to four combinations of 'Memories, Date, Place, Camera mode'.

- ▶ Tap **Content Save**  to save the related content as a video.
- ▶ Tap **Menu**  to access additional options.

### Editing photos

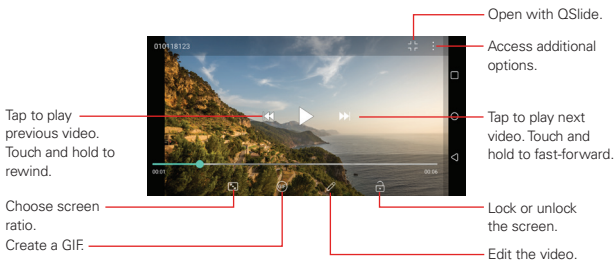
1. While viewing a photo, tap the **Edit** icon .
2. Use a variety of effects and tools to edit the photo.
3. Tap **SAVE** to save changes.
  - ▶ The edited photo overwrites the original file.
  - ▶ To save the edited photo as another file, tap the **Menu** icon  > **Save copy**.

### Writing a memo on the photo

1. While viewing a photo, tap **Memo** .
2. Write a memo on the photo and tap **SAVE**.

## Playing a video


Select a video from an album in your Gallery. Playing it using the Videos app provides the following options.



### NOTES

- To adjust the sound volume, drag up or down along the right side of the video screen.
- To adjust the screen brightness, drag up or down along the left side of the video screen.

## Editing videos

- While viewing a video, tap the **Edit** icon .
- Use a variety of effects and edit tools to edit the video.



- Tap **SAVE** to save changes.

## Making a GIF file

You can easily make a GIF file using previously recorded video.



At the desired starting point while watching the video, tap **Create GIF** .

- ▶ The GIF file is generated for the time selected from the current time.
- ▶ For videos less than 5 seconds, GIF images are automatically generated for the remaining time.

**WARNING!** GIF making feature is provided for the user's creative activity. If you infringe other's copyright or defamation laws by using GIF making feature, you may be liable for civil and criminal liability. Be sure to not duplicate or transfer work of others without permission. LG Electronics cannot accept any liability for user's action.




## Related files

You can relate files by photos and videos taken with the same location or date.

1. Select the saved photos and videos and tap **Related** .
2. Select a desired folder, then tap **Video folder**  to create a video.




## Deleting files

You can delete a file using one of the following options:

- ▶ Touch and hold a file in an album, tap **Delete**, then tap **DELETE** to confirm.
- ▶ Tap the **Delete** icon  in an album, select a file (or files), tap **DELETE**, then tap **DELETE** to confirm.
- ▶ Tap the **Gallery Menu** icon  > **Trash** icon  to access the files you deleted within the last 7 days. You can move any of these files back to any of your albums.




## Sharing files

You can share a file using one of the following options:



- ▶ On the photo or video screen, tap the **Share** icon  to share the file using the method you select.
- ▶ While viewing a video, tap the **Menu** icon  > **Share** to share the file using the method you select.
- ▶ Tap the **Share** icon  from the Albums screen to select one or more files and share using the method you select.

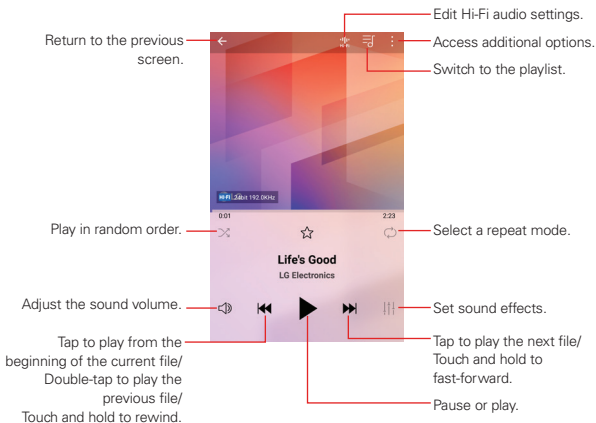
## Assign Pictures

After taking a picture, assign it as a picture ID for a Contacts entry or as the background image (wallpaper) for your Home screen or Lock screen.



1. Tap the **Home button**  > **Gallery** 
2. Tap an album and tap an image to view it.
3. With the picture displayed, tap the screen > the **Menu** icon  > **Set image as**.
4. Select an option.
  - ▶ **Lock screen wallpaper** assigns the picture as the background image for your Lock screen. Crop the image, tap **OK**, then tap **SET** to assign the picture.
  - ▶ **Home screen wallpaper** assigns the picture as the background image. Crop the image, tap **OK**, then tap **SET** to assign the picture.
  - ▶ **Contact photo** assigns the picture to a Contact entry as a picture ID. Tap an entry from Contacts, crop the image, then tap **OK** to assign the picture.
  - ▶ **Wallpaper** assigns the picture as the phone's background image. Tap **SET WALLPAPER** to assign the picture.

## Music


Your phone has a music player that lets you play all of your favorite tracks. To access the Music player, tap the **Home button**  > swipe left, if necessary > **Music** .




### Playing a song

1. Tap the **Home button**  > swipe left, if necessary > **Music** .
2. Select a category.
3. Tap the song you want to play.


#### TIP

To find a song, you can tap the **Search** icon  at the top of the screen or touch and hold the letter the song begins with using the alphabet listed along the right side of the screen.

### Other Music player options

- ▶ Touch and hold any song in the Music library to access its context menu which includes: **Add to playlist**, **Delete**, **Phone ringtone**, **Caller ringtones**, and **Details**.
- ▶ Tap the **Menu** icon  in the Music library to access its options menu which includes: **Cloud**, **Select to play**, **Add to playlist**, **Share**, **Settings**, and **Help**.

### Turning the Music player off

To stop the Music player, swipe the Status Bar downward, then tap the **Close** icon  in the upper-right corner of the Music notification.

#### NOTES

- Some file formats are not supported, depending on the device software.
- If the file size exceeds the available memory, an error can occur when you open files.
- Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a license 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.

### To use a song as a ringtone

You can use a song as your phone ringtone, in place of one of the ringtones that come with the phone.

- ▶ Touch and hold a song in the Music library list. In the context menu that opens, tap **Phone ringtone** or **Caller ringtones**.



#### NOTE

If you choose Caller ringtones, tap the contact entry to set it.


## Working with Playlists

You can create playlists to organize your music files into sets of songs, which you can play in the order you set or in a shuffle.



### To create a playlist

1. From the Music library, tap the **Music Menu** icon  then tap **Playlists**.
2. Tap the **New** icon .
3. Enter a name for the playlist and tap **SAVE**.
4. Select the songs you want to add to a playlist, then tap **ADD**. The new playlist is added to your Playlists.


### To add a song to a playlist

1. From the Music library, tap the **Menu** icon , then tap **Add to playlist**.
2. Select the song(s) you want to add, tap **ADD**, then tap the name of the playlist you want to add it to.


### To remove a song from a playlist

1. Open your Playlists using the **Music Menu** icon , then tap the playlist you want.
2. Tap  **Menu** > **Remove from playlist**.
3. Select the songs you want to remove from the playlist and tap **REMOVE**.

### To delete a playlist

1. Open your Playlists using the **Music Menu** icon .
2. Touch and hold the playlist, then tap **Delete** in the context menu that appears.
3. Tap **DELETE** to confirm.




### To rename a playlist

1. Open your Playlists using the **Music Menu** icon .
2. Touch and hold the playlist, then tap **Rename** in the context menu that appears.
3. Enter a name, then tap **SAVE**.

## HD Audio Recorder

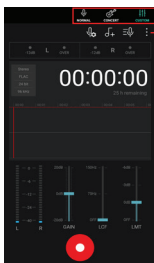
The HD Audio Recorder feature app records audible files. Use them to simply remind you about something you don't want to forget (like a grocery list), record sound effects that you can attach to a message, or even record your voice over background audio (such as music or a speech).

You can preset recording options or manually configure specific audio settings so that you can record audio optimized for the selected mode.

- ▶ Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **HD Audio Recorder** .

### Recording modes

You can record a high quality audio file by selecting and configuring the audio mode to suit the recording environment. Audio recording modes are displayed in the Second screen.



- Audio Mode Icons
- Menu Icon
- Tap here to access Timer, Add tags, Settings, and Help.

#### Normal mode

Records simple audio without any additional settings.

#### Concert mode


Allows you to record audio in a concert or other audio event environment.

#### Custom mode

Allows you to configure the specific audio settings you want to record your audio file.











- ▶ **GAIN adjustment:** Allows you to adjust the sensitivity of the sound recorded by the microphone. The higher the GAIN value is set, the more sensitively the sound is recorded.
- ▶ **LFC (Low Cut Filter) adjustment:** Allows you to filter low-pitched noises. The higher the LCF value is set, the better high-frequency noises are filtered.
- ▶ **LMT (Limiter) adjustment:** Allows you to prevent audio sound from distortion caused by a sudden, intense sound wave. The higher the LMT value is set, the better sound distortion is prevented.

**NOTE** Tap the **Menu icon**  > **Settings** to customize the file type, bit depth, sampling rate, etc. depending on the mode selected.

## Studio mode








Studio mode provides a variety of ways to record your voice with other audio including recording your voice simultaneously with a background audio file (music, speech, etc.), creating a chord by recording your voice multiple times, and more.

1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **HD Audio Recorder** .
2. Select the **CUSTOM** mode displayed on the Second screen.
3. Insert your earphones and tap the **Studio mode** icon .
4. Select an audio file to use as background music, if necessary.
5. Tap the **Record** icon  to record voice.
6. Tap the **Done** icon  to save the recorded file.

- NOTES**
- Background music can only be played through earphones. Make sure to plug in earphones before using this feature.
  - When you connect an earpiece to the device, the **Select mic** icon  appears. Tap  and then select the microphone to use.
  - You can monitor sound quality with the connected earpiece while recording audio. While recording audio in STUDIO mode, sound monitoring is not supported. You can hear only the background music.

## Calculator


### Using your calculator

1. Tap the **Home button**  > swipe left, if necessary > tap the **Tools** folder  > **Calculator** .
2. Tap the number buttons and the function buttons (, ,  or ) as necessary. The result automatically appears as soon as enough calculation information is entered.
  - ▶ Drag the blue sidebar (on the right side of the screen) to the left to access and enter scientific calculator functions.
  - ▶ To clear input, tap the **DEL** button. To clear the display, touch and hold the **DEL** button.

**NOTE** Turn the device to landscape orientation to expand the calculator to keep the scientific functions displayed on the screen.





## Calendar

### Viewing Your Calendar and Events

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







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

## Adding an event to your calendar

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






## Added information icons


There are several Calendar icons designed to help streamline event entry by extracting information (such as dates, addresses, etc.) from other sources and automatically updating corresponding event fields. In addition, there are icons you can use to embellish your events with identifying images. Simply tap one of the following icons (displayed below and next to the Location field) to apply it to the event.

- ▶  Allows you to insert a photo.
- ▶  Allows you to insert a saved memo.
- ▶  Enters information from a selected Facebook event to update event fields.
- ▶  Enters information from a selected location to update event fields.
- ▶  Allows you to insert a saved task.
- ▶  Allows you to insert a saved Pocket file.

## Using Event pocket


Use the Event pocket feature to easily add events to your Calendar. You can add events using images, text, memos, tasks, location, and also invites and events from your Facebook account.

1. Open the **Calendar** app, then tap the **Event pocket** icon  to split the screen (Calendar on the left and Pocket on the right).
2. Tap a pocket type to view the items saved in it, then drag an item on to the date you want it added to in your Calendar.
  - ▶  Displays events from your Facebook account.
  - ▶  Displays location markers from the Maps app.
  - ▶  Displays your saved tasks.
  - ▶  Display memos and images.
3. The event is automatically saved. You can edit the event to add additional details.

**NOTE** While viewing items in the Pocket folder, tap the **Add** icon  to add an image or a memo, then complete as necessary.

## QSlide for the Calendar app





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


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

## Clock

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

### Setting an alarm

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

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


### Activating your alarm(s)

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

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

### Setting the World Clock

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

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

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

## Timer

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


1. Open the **Clock** app, then select the **Timer** tab.
2. Set the desired time on the timer.
3. Tap the **Start** button to start the timer.
  - ▶ Tap the **Pause** button to pause the timer.
4. Tap the **Stop** button to stop the timer.

## Stopwatch




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

1. Open the **Clock** app, then select the **Stopwatch** tab.
2. Tap the **Start** button to initiate the stopwatch.
  - ▶ Tap the **Lap** button to record lap times.
3. Tap **Pause** to suspend the stopwatch.
  - ▶ To resume the stopwatch, tap **Resume**.
  - ▶ To clear all the records and restart the stopwatch, tap **Reset**.





## File Manager

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


### To open the File Manager app

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

### Using File Manager

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

### Searching in File Manager

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

## LG Health

### LG Health overview



You can set the goal of daily exercise and check the amount of physical exercise to monitor your health and fitness information.

#### NOTES

- Health related information provided by LG Health is designed for user convenience and cannot be used for purposes of disease prevention, treatment, diagnosis or other medical issues.
- LG Health may vary or may not be available, depending on the country and the mobile service provider. LG Health functions that are available and apps that can be added to LG Health may vary, depending on the country. This is due to differing laws and regulations.



## Getting started with LG Health

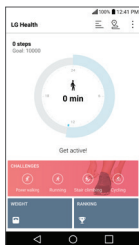
You can configure LG Health when launching the app for the first time or after resetting it.




1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **LG Health**.
2. Follow the on-screen instructions to complete configuration.

## Using LG Health

You can easily view main information on LG Health and manage the amount of physical exercise and health information.

1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **LG Health**.
2. The following options are available:
















- ▶  : View the record of your physical exercise on a particular date.
- ▶  : Record the route and amount of your physical exercise for each type of exercising performed.
- ▶  : Set calories, step count and other daily exercise goals and customize LG Health settings.











## QuickMemo+

QuickMemo+ provides you with the ability to make creative notes using a variety of options. This advanced notepad feature, unlike other conventional notepad apps, supports image management and screenshots.



### Creating a note

1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **QuickMemo+** .
2. Tap the **Add icon**  to create a note, then use the tools and options as needed.
  - ▶  : Tap to save the note you created.
  - ▶  : Tap to undo the most recent action.
  - ▶  : Tap to redo the most recently deleted action.
  - ▶  : Tap to insert text into your memo.
  - ▶  : Tap to draw on your memo. Tap again to select the pen type, size, color, and transparency.
  - ▶  : Tap to erase pen marks you've made on the memo.
  - ▶  : Tap to select a section of your handwritten memo to modify (e.g., erase, rotate, expand, shrink, etc.).
  - ▶  : Tap to access additional options, including deleting, sharing, and locking notes, changing the note pad style, inserting content, and more.
3. Tap the **Done icon**  to save the note.

### Writing notes on a photo

1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **QuickMemo+** .
2. Tap the **Camera icon**  to use the Camera function. Tap the **Capture icon**  to take the photo you want, then tap **OK**.
  - ▶ The photo is automatically inserted in your note.
3. Write notes on the photo.
  - ▶ Tap the **Pen icon**  to write notes by hand on the photo.
  - ▶ Tap the **Type icon**  to enter text below the photo.
4. Tap the **Done icon**  to save the note.

### Writing notes on a screenshot







1. While viewing the screen you want to capture, drag the Status Bar downward and then tap the **Capture+** icon  in the Quick settings.
  - ▶ The screenshot appears as the notepad background theme. Memo tools appear at the top of the screen.
2. Take notes as desired.
  - ▶ Write notes by hand on the photo.
3. Tap the **Done icon**  and save the note to the location you want.
  - ▶ Saved notes can be viewed in either **QuickMemo+** or **Gallery**.
  - ▶ To save notes in the same location all the time, select the **Use as default app** checkbox and select an app.

**NOTE**

If you add text to the note, it will automatically be changed to a QuickMemo+ file.

## Managing folders

You can view your notes grouped together by type and easily manage your memo files.

1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **QuickMemo+** .
2. Tap the **QuickMemo+ Menu icon**  and select a menu item:
  - ▶ **All memos:** View all notes saved in QuickMemo+.
  - ▶ **My memos:** View notes created using QuickMemo+.
  - ▶ **Photo memos:** View notes created using .
  - ▶ **Capture+:** View notes created using the Capture+ option from the Status Bar.
  - ▶ **Trash:** View deleted notes.
  - ▶ **New category:** Adds a new category. Enter a name and select an associated graphic.
  - ▶ : Manages (add, delete, rename, and rearrange) your folder categories. To change the name of a category, tap the category.

### NOTE







Some folders do not appear when launching QuickMemo+ for the first time. Disabled folders are enabled and appear when they contain at least one related note.

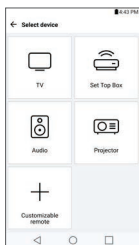
## QuickRemote

QuickRemote turns your phone into a Universal Remote for your home TV, Set Top Box, Audio, Projector, and other equipment. You can use the remote layout provided or create customized remotes.

**NOTE** QuickRemote may not be available for some devices and areas.

### Set up QuickRemote

1. Tap the **Home button**  > swipe left, if necessary > tap the **LG folder**  > **QuickRemote** .
2. Tap the QuickRemote **Menu icon**  **Living room**  > to select a room type, then tap the **New icon**  to add the device.



3. Select the type and the brand of the device, or select **Customizable remote** to create your own specialized remote (including DVD, Blu-ray, air conditioner, etc.). Follow the on-screen instructions to configure the device(s).


**NOTE** The QuickRemote operates the same way as an ordinary infrared (IR) remote control in your region or country. Be careful not to cover the infrared LED at the top of the phone when you use the QuickRemote function. This function may not be supported depending on the model, the manufacturer, or service company.


## Using QuickRemote

1. Open the **QuickRemote** app and choose the room where you configured the remote.
2. Select the remote you want to use by tapping its type/name on the QuickRemote bar along the top of the screen.
3. Tap the buttons on the displayed remote.

**NOTE** When adding the TV remote control, QuickRemote could use the INPUT button to configure the appropriate remote control. When configuring the INPUT button, the TV input source could be changed. To reset the TV input source, tap the INPUT button on QuickRemote several times (depending on the number of devices connected to the TV).

## QuickRemote options





With a programmed remote displayed, tap the **Menu icon**  to select options including **Delete**, **Rename**, **Move**, **Edit**, and **Settings**.

**NOTE** Choose **Settings** to change any location name and its associated graphic (viewed in the **QuickRemote Menu** ) for easy identification.

## QSlide

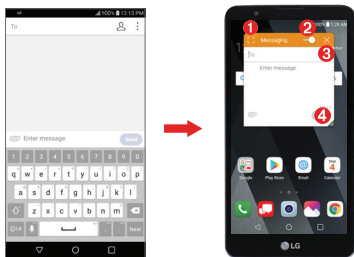
The QSlide function enables an overlay window on your phone's display for easy multi-tasking. The overlay window can be moved, resized, or made transparent. QSlide windows can be opened directly from the apps that support the QSlide function.

### To open a QSlide window

- ▶ While using an app that supports QSlide, tap the **Menu icon** , then tap QSlide.
  - ▶ You can add the QSlide icon to the Home touch buttons bar to allow you to easily use QSlide.
1. Tap the **Home button**  > swipe left, if necessary > tap **Settings**  > **Display** > **Home touch buttons** > **Button combination**.
  2. Drag the **QSlide icon**  on the bar to add it to the Home touch buttons.

## Using QSlide

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



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

### NOTE

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

## Google Apps

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

### Google

Use Google to search for web pages, images, news and more by entering or speaking keywords.

### Drive

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

### Maps

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

### Photos

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

### Hangouts

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

### Chrome

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

### Gmail

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

**Play Movies & TV**

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

**YouTube**

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

**Play Music**

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

**Google Pay**

Add credit or debit cards and use Android Pay to make payments.




## Settings

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


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

### To open the Settings app

▶ Tap the **Home button**  > swipe left, if necessary > **Settings** .

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

### Viewing settings

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

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

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

## Network & internet

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

### Airplane mode

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





### Wi-Fi

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.

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

1. Tap  Home >  Settings > Wi-Fi.
2. Tap  **Wi-Fi ON/OFF** to turn Wi-Fi on and start scanning for available Wi-Fi networks.
3. Tap  to see a list of active and in-range Wi-Fi networks.
  - ▶ Secured networks are indicated by a lock icon.
4. 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.)
5. The Status Bar displays icons that indicate your Wi-Fi status.

## Wi-Fi network settings

Allows you to set up many of your device's Wi-Fi services.

 **Options** Accesses the Wi-Fi options menu.

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

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

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

## NOTIFICATIONS

**Wi-Fi notification** Enable this option to be notified when Wi-Fi networks are available nearby.

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

## USEFUL SETTINGS

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

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

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

## CONNECTION

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

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

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

## PERSONAL

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

## INFORMATION

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

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

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

### Wi-Fi Direct

You can connect your device to other devices that support Wi-Fi Direct to share data directly with them. You do not need an access point. You can connect with more than two devices by using Wi-Fi Direct.

1. On the settings screen, tap **Wi-Fi** > **⋮ Options** > **Advanced Wi-Fi** > **Wi-Fi Direct**.

- ▶ Nearby devices that support Wi-Fi Direct automatically appear.
2. Select a device.
    - ▶ Connection occurs when the device accepts the connection request.

## Tethering & Mobile Hotspot

You can set the device as a wireless router so that other devices can connect to the Internet by using your device's mobile data.

### Mobile Hotspot

1. On the Tethering & Mobile Hotspot screen, tap **Mobile Hotspot** and then tap its  switch to toggle it ON or OFF.
2. Tap **Set up Mobile Hotspot**, and enter the Wi-Fi name (SSID) and password.
3. Turn on Wi-Fi on the other device, and select the name of the device network on the Wi-Fi list.
4. Enter your device's Mobile hotspot password on the target device.

- NOTES**
- This option uses mobile data and may incur data usage fees, depending on your pricing plan. Consult with your service provider for more information.
  - More information is available at this web site: <http://www.android.com/tether#wifi>

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

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

**Use NFC for Mobile Hotspot** Enable this option to allow connection to the mobile network using NFC.

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

### CONNECTED DEVICES

Displays all connected devices.

- NOTE** Tap  **Options** to access mobile hotspot tips and help.

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

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

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

## Data usage

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

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

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

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

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

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

⋮ **Options** Accesses the Data usage options menu.

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

**Data Saver** Allows you to enable the **Use Data saver** option which restricts the data that runs in the background. You can set individual apps to have unrestricted data access when Data saver is enabled.

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

**Metered Wi-Fi networks** Allows you to select Wi-Fi networks to restrict apps that run in the background and be notified when downloading large files.

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

## Advanced Calling

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

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

## Mobile networks

Allows you to set various mobile network settings.

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

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

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


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

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

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

## VPN

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

**NOTE** Tap  Options from the LG VPN screen to access **Log**, **Settings**, **Import certificates**, **Delete all**, and **About**.

## Wireless Emergency Alerts

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





## Connected devices

### Bluetooth

You can connect your device to nearby devices that support Bluetooth to exchange data with them. Connect your device to a Bluetooth headset and a keyboard. This makes it easier to control the device.

#### Pairing with another device

You must pair your phone with a Bluetooth device before you connect to it.


1. Tap  Home >  Settings > Connected devices > Bluetooth.
2. Tap  Bluetooth ON/OFF to turn Bluetooth on and search for the devices within your phone's range.
  - ▶ Available devices appear automatically.
  - ▶ To refresh the device list, tap .
3. Choose the device you want to pair with from the list.
4. Follow the on-screen instructions to perform authentication.

**NOTE** Only devices set as visible are displayed on the list.

**NOTE** This step is skipped for previously accessed devices.

Once pairing is successful, your phone will connect to the device.

#### Sending data via Bluetooth

1. Open the item you want to send, then tap  Sharing.

OR

Touch and hold the item you want to send, then select **Share**.

OR




Open the item you want to send, then tap  Options > Share.

2. Tap Bluetooth to share via Bluetooth.

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

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

### Receiving data via Bluetooth

1. Tap  Home >  Settings > Connected devices > Bluetooth.
2. Tap  Bluetooth ON/OFF to turn Bluetooth on
3. Tap **ACCEPT** when you receive a data request.

### Screen sharing

Allows you to project your phone's content on a compatible TV.

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

**V20** Allows you to change your phone's name to easily identify it.

#### AVAILABLE DEVICES

Displays all of the devices that can project your content via Screen sharing.

**SEARCH** Refreshes the available devices list.

**HELP** Displays information regarding how to use Screen sharing.

### NFC

Enable this option to allow you to send or receive files simply by bringing your phone and another data-compatible device together (typically within 20 mm of each other) at the NFC touch point. NFC (Near Field Communication) establishes radio communication between smartphones and similar devices. Tap NFC to manage its settings.

#### NFC SECURITY ALERTS

**Show NFC security alerts** Enable this option to display a permission alert when another device tries to send you information via NFC.

#### ALERTS TO SHOW

**Read/Peer to Peer** Enable this option to display a confirmation alert when receiving a contact or URL via NFC.

**Connection handover** Enable this option to display a confirmation alert when pairing devices via NFC.



## SHARING OF WI-FI INFO

**Allow sharing of Wi-Fi info** Lets you send Wi-Fi credentials to other devices for easy sign-in.

## NFC SOUND

**NFC sound in call** Enable this option to play the NFC alert sound even while you're on a call.

## Android Beam

Enable this option to allow you to beam app content or files to other mobile devices by holding them close together. Tap Android Beam to view information on how to use it.

## Sharing panel

Allows you to choose to share with nearby devices or specific people.

## File sharing

Allows you to send and receive files between your device and other LG devices or tablets.

**V20** Allows you to change your phone's name for easy identification when setting up your devices for beaming.

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

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

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

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

## Media server

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

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

## YOUR PHONE

**V20** Allows you to change your phone's name to easily identify it.

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

## NEARBY DEVICES

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

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

## MirrorLink

Allows you to share apps between your device and the vehicle. To obtain more information about apps, please visit <http://www.mirrorlink.com/apps>.

**NOTE** For your driving safety, access to some features will be restricted during a MirrorLink session.

**Use MirrorLink** Enable this option to use MirrorLink with a vehicle. This setting is gray until the device and vehicle are connected with a USB Type-C cable.

## APPS

Displays the list of apps that can be shared between your device and the vehicle.

## Printing

Allows you to set up wireless printer(s).

### PRINT SERVICES

Displays the list of your available print apps.

**Cloud Print** Allows you to use Goggle Drive to save your print files as well as search, add printers, and manage your printing options.

**⋮ Options** Accesses the Printing options menu so you can add additional printing apps.

## Sound

### Sound profile

Allows you to set whether your device emits Sound, Vibrate only, or is Silent.

### Volume

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

### Ringtone

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

### Ringtone ID

Enable this option to allow you to set calls to play a specially composed ringtone.

### Ring with vibration

Enable to set the device to vibrate in addition to the ringtone when you receive calls.

### Notification sound

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

### Do not disturb

Enable this option to allow you to set up and schedule when to prevent interruptions from notifications. You can set specific parameters that will override the Priority only setting.

### Hi-Fi Quad DAC

Enable this option to use any connected external audio device and optimize the sound quality using this menu.

## VIBRATION

**Vibration strength** Allows you to set the vibration strength for calls, notifications, and touch feedback.

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

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

## SOUND EFFECTS

Allows you to set when a sound is emitted to notify you of an event. Enable **Dialing keypad sound**, **LG Keyboard sound**, **Touch sound**, **Screen lock sound**, **Sound when roaming**, and set the **Emergency tone**.

## Display

### Home screen

#### GENERAL

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

#### STYLE

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

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

**Theme** Allows you to select a screen theme for your device.

**Icon shape** Allows you to choose the desired icon shapes on the Home screen.

#### LAYOUT

**Left Home screen** Choose **AppFlash**, **Smart Bulletin**, or **None** to display on the left screen of the Home screen panel.

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

**Hide apps** Allows you to selectively hide apps from the Home screen.

**Loop Home screen** Enable to allow continuous Home screen scrolling (loop back to first screen after the last screen).

## TIPS

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

## Font

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

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

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

## Home touch buttons

Allows you to set the buttons displayed at the bottom of all screens, including color and placement.

## Second screen

Customize the settings and options for the Second screen. See Second screen for details.

**When the main screen is on** Allows you to enable content while the screen is on and choose what content is available.

**When the main screen is off** Allows you to enable content while the screen is off and choose what content is available.

**Show time while content is shown** Allows the time and phone status to be displayed while media content, such as images and videos, is shown.

## Display size

Allows you to set the size for the items and text viewed on screens without dynamic zoom capability.

### Comfort view

Enable this option to set a blue light filter to reduce eye strain. Once enabled, set the level to your preference.

### Brightness

Allows you to set the brightness for the screen or you can enable the automatic setting.

### Auto-rotate screen

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




### Screen timeout

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

### Screen saver

Enable this option to display a screen saver when the device is connected to a holder or charger. Tap Screen saver to select a screen saver type to display.

### Mini view

Tap its switch to toggle it ON or OFF. Enabling this option will shrink the screen when you swipe left or right across the  **Back**,  **Home**, and  **Recent apps**. Shrinking the screen can make it easier to use the device with just one hand.

## Lock screen & security

### SECURITY STATUS

#### Google Play Protect

Check the device periodically for potentially harmful apps.

#### Find My Device

Allows you to remotely track the device location. You can also save your data securely if you lost your device.

## Security update

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

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

**Use Software Upgrade Assistant** Displays information regarding how to use system updates.

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

## LOCK SCREEN

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

### Customize Lock screen

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

**Clock** Allows you to set where to position the clock on the Lock screen.

**Shortcuts** Allows you to choose apps to run on your Lock screen. This setting appears only when a screen lock is set.

**Screen swipe effect** Allows you to set the screen transition effect to apply when the screen is unlocked.

**Weather animation** Enable this option to display weather animations for the current location on the Lock screen.

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

### Secure lock settings

**Lock timer** Allows you to set the amount of time before the screen automatically locks after the backlight turns off (time-out due to inactivity).

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

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

## BIOMETRICS

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

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

## PRIVACY

**Content lock** Allows you to set a lock type (password or pattern) for your QuickMemo+ and Gallery files.

### Location

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

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

**Scanning** Allows you to enable Wi-Fi scanning and/or Bluetooth scanning even when those features are set to off.

**App-level permissions** Allows you to set permissions for each apps.

### RECENT LOCATION REQUEST

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

### LOCATION SERVICES

**Low power location estimation** Enable this option to improve location performance while conserving battery.

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

From the Location History screen, tap **⋮ Options** to view and/or manage your location data.



## ADVANCED

### Encryption & credentials

#### ENCRYPTION

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

**Secure start-up** Enable this option to immediately lock the screen when you turn on the device to help keep it secure. Unlock the screen by entering the current unlock method, such as a Knock Code, Pattern, Password, or PIN. Until the screen is unlocked, you cannot receive most phone calls, text messages, alarms, notifications, and more.

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

#### CREDENTIAL STORAGE

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

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

**User credentials** Allows you to view and modify stored secure certificates.

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

**Clear credentials** Allows you to delete user added secure certificates and related credentials.

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

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

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

**Screen pin** Allows you to selectively pin an app to your screen. Enable this option to be able to designate only a single app that can be used until you unpin it. This is helpful when allowing children to use your phone.

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


## Extensions

### Smart cleaning

Displays the space in use and free space in your phone and allows you to selectively clean up your files.

### Gaming

You can configure settings for game tools, screen resolutions and battery saving feature.


**Game tools** Tap  **ON/OFF** to activate this feature. You can launch this feature by tapping the game tool icon at the bottom of the screen while playing games.

**Game graphics** Adjust the game resolutions.

**NOTE** When you change the resolutions on some games, the screen display feature may not work properly.

**Break time** Allows you to set the screen brightness and performance to apply when you do not touch the screen for 5 minutes.

### Shortcut keys

Tap the switch at the top of its screen to toggle it On or Off. On enables the  **Volume** buttons to directly launch apps when the screen is turned off or locked.

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

### KnockON

**KnockON** Enable this option to turn the screen on or off by tapping the screen twice.

## Apps & notifications

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

## Battery

The current percentage of remaining battery power and the charging status (when charging) are displayed.


### Battery usage

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

### Battery percentage on Status Bar

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

### Battery saver

Reduce battery consumption by cutting down some device settings, such as the display brightness, speed and vibration intensity. The status bar displays  when power saving mode is on.

### Power saving exclusions

Select apps to use without any functional limitation while in power saving or battery optimization mode.

## APP USAGE

Displays battery usage information for each app.

## Storage


### DEVICE

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

### EXTERNAL

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

 Allows you to eject (unmount) your microSD card.

To format the memory card, tap **SD card** >  **Options** > **Storage settings** > **Format**.

## Accounts

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

### ACCOUNTS

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

**Add account** Allows you to add accounts to your phone.

## Accessibility

### TYPE

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

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

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

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

**Display size** Allows you to set the size for displayed screen items (e.g., icons, text, etc.). Changing the size may affect item positioning on the screen.

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

**Window zoom** Enable this option to activate a magnifying window. Use two fingers to drag it to other positions on the screen. When activated, you can zoom in or out within the window and set the window's color inversion. Tap **Window zoom** to view information and adjust its settings.

**Large mouse pointer** Enable this option to increase the size of the mouse pointer.

**High contrast screen** Enable this option to change the background color to black for a high contrast screen.

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

**Screen color adjustment** Enable this option to allow you to adjust the screen's hue and contrast. Tap **Screen color adjustment** to adjust it.

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

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

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

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

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

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

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

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

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

## DEXTERITY

**Touch assistant** Turn on the touch board to make buttons and gestures easier to use.

**Touch input** Set the desired delay time for touching and holding, or adjust the touch input to ignore repeated taps.

**Touch and hold delay** Allows you to set how long you need to touch an item before the device reacts.

**Ignore repeated taps** Allows you to set how the device interprets your tap action.

**Physical keyboard** Allows you to customize specified key settings.

**Key repeat** Enable this option to set how the device reacts when a key is held. Tap **Key repeat** to set the delay before the key entry will be repeated and the key repeat interval.

**Sticky keys** Enable this option to allow you to press modifier keys without having to press and hold.

**Sticky keys shortcut** Enable this option to enable the Shift button as a shortcut to Sticky keys.

**Slow keys** Enable this option to set a delay time before input is displayed.

**Auto mouse click** Enable this option to automatically activate the cursor where the pointer stops. Tap **Auto mouse click** to set its delay time.

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

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

## INTERACTION

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

## GENERAL

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

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

## SERVICES

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

**Select to Speak** Allows you to tap items to hear spoken feedback.

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

**My Verizon Guided Navigation** When Assistive touch service is active, your device provides access to read the elements present on the screen. This is used by the My Verizon app to provide assistive tutorials to navigate.

## Google

Allows you to manage your Google apps and account settings.

## System

The System category allows you to view and manage various system settings.

### Language & input

**Language** Allows you to set a main language for your phone's operating software and also add other languages.

**Default** Displays the name of the current keyboard. Tap to change it.

**On-screen keyboard** Allows you to customize the LG keyboard settings or voice recognition feature by Google Voice.

**Physical keyboard** Allows you to set the physical keyboard, or check keyboard shortcut keys.

**Autofill service** Enable this option to enter your information saved in your account such as password, address, or credit card number with a single tap. You can also disable this option, use as a Google Autocomplete, or add a new service account.

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

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

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

### Date & time

#### BASIC

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

Tap **Select time zone** to use a time zone other than the one provided by the network.



## TIME FORMAT

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

## Memory

You can view the average amount of memory usage over a certain period of time and the memory occupied by an app.

1. On the settings screen, tap **System > Memory**.
2. Tap ▼ to set a time slot to retrieve data.

## Backup

### LG MOBILE SWITCH & BACKUP

**LG Mobile Switch** Allows you to copy data from a previous device to a new device. You can transfer data using a USB cable, wireless network, and SD card.

- NOTES**
- Data in a Google account will not be backed up. When you synchronize your Google account, Google apps, Google contacts, Google calendar, Google memo app data and apps downloaded from the Play Store are stored on the Drive app automatically.
  - Fully charge the battery before transferring data to avoid unintentional powering off during the process.

**Backup & restore** Allows you to back up your data to internal storage or SD card. You can also restore your data from a previous backup.

- WARNING!** Resetting your device may delete backup files saved in storage. Make sure to copy and store the important backup files to your PC.

## GOOGLE BACKUP

**Google backup** You can choose to back up to your Google Drive.

## Reset

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

**Reset app preferences** Allows you to reset all of the app preferences.

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

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

### **About phone**

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

### **System updates**

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

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

**Use Software Upgrade Assistant** Displays information regarding how to use system updates.

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

## HAC

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

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

## FCC RF Exposure Information

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

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

## Body-worn Operation

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

**Part 15.19 statement**

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

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

**Part 15.21 statement**

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

**Part 15.105 statement**

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

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

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

The phone by LG operates on Verizon's 4G LTE network, based on Long Term Evolution (LTE) technology and Mobile Broadband 4G networks in the

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

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

\* Information subject to change.

## Consumer Information About Radio Frequency Emissions

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

### Are wireless phones safe?

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

<http://www.fcc.gov/cgb/cellular.html> or through the FCC at (888) 225-5322 or (888) CALL-FCC.

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

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

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

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

If you are concerned about RF, there are several simple steps you can take to minimize your RF exposure. You can, of course, reduce your talk time. You can place more distance between your body and the source of the RF, as the exposure level drops off dramatically with distance. The FDA/FCC website states that "hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the

phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit." Also, if you use your wireless phone while in a car, you can use a phone with an antenna on the outside of the vehicle. You should also read and follow your wireless phone manufacturer's instructions for the safe operation of your phone.

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

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

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

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

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

FDA Consumer magazine November-December 2000

Telephone: (888) INFO-FDA

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

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

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

Telephone: (888) 225-5322

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

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

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

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

283 Sparks Street Ottawa, Ontario K1R 7X9 Canada

Telephone: (613) 991-6990

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

### **World Health Organization**

Avenue Appia 20 1211 Geneva 27 Switzerland

Telephone: 011 41 22 791 21 11

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

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

c/o Bundesamt für Strahlenschutz Ingolstaedter Landstr. 1 85764

Oberschleissheim Germany

Telephone: 011 49 1888 333 2156

<http://www.icnirp.de>

### **American National Standards Institute**

1819 L Street, N.W., 6th Floor Washington, D.C. 20036

Telephone: (202) 293-8020

<http://www.ansi.org>



## National Council on Radiation Protection and Measurements

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

Telephone: (301) 657-2652

<http://www.ncrponline.org>

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

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

## Consumer Information on SAR

### (Specific Absorption Rate)

This model phone meets the government's requirements for exposure to radio waves. Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to Radio Frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

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

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

The highest SAR values are:

- Head: 1.03 W/kg
- Body-worn/Hotspot: 0.88 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/ea/fccid> after searching on FCC ID ZNFVS995.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org/>.

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

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

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

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

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

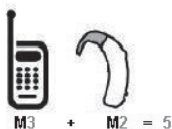
The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate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

**M-Ratings:** Phones rated M3 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled.

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

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise.

The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



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

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

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

For information about hearing aids and digital wireless phones:

**Wireless Phones and Hearing Aid Accessibility**

<http://www.accesswireless.org/>

**Gallaudet University, RERC**

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

**FCC Hearing Aid Compatibility and Volume Control**

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

**The Hearing Aid Compatibility FCC Order**

[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-168A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-168A1.pdf)

**Hearing Loss Association of America [HLAA]**

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

**Caution:****Avoid potential hearing loss.**

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

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

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

- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use 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)

### Phone Operation

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

### Tips on Efficient Operation

For your phone to operate most efficiently:

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

## **Electronic Devices**

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

### **Pacemakers**

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

Persons with pacemakers:

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

### **Hearing Aids**

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

### **Other Medical Devices**

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



## Health Care Facilities

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

## Vehicles

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

## Posted Facilities

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

## Aircraft

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

## Blasting Areas

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

## Potentially Explosive Atmosphere

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

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

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

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

## **Safety Information**

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

### **Caution**

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

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

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

### **Charger Adapter and Cable Safety**

- The charger and adapter are intended for indoor use only.
- Insert the battery charger vertically into the wall power socket.
- Only use the LG-approved battery charger. Otherwise, you may cause serious damage to your phone.
- Use the correct adapter for your phone when using the battery charger abroad.
- A charging adapter that supports fast charging is included with the product.
- Do not use third party chargers with your device as they may not support fast charging and may cause damage to your device.

### **Battery Information and Care**

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

- Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- Please use only an approved charging accessory to charge your LG phone. Improper handling of the charging port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.
- The charging temperature range is regulated between 32°F (0°C) and 95°F (35°C). Do not charge the battery outside of the recommended temperature range. Charging outside this range might cause excessive heat generation, serious battery damage, and deterioration of battery's characteristics and cycle life.
- Do not use or leave the phone in direct sunlight or in a car heated by sunshine. The battery may generate excessive heat, smoke, or flame. It also might cause deterioration of battery's characteristics or cycle life.
- If skin or clothing is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation.
- Please take your phone to an authorized service center immediately if this occurs.
- Do not handle the phone with wet hands while charging. It may cause an electric shock or seriously damage your phone.
- Do not place or answer calls while charging the phone as it may shortcircuit the phone and/or cause electric shock or fire.
- The charger and adapter are intended for indoor use only.
- Insert the battery charger horizontally into the wall power socket.
- Talking on your phone for an extended period of time may reduce call quality due to heat generated during use.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone as this could cause a fire.

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

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

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

### **General Notice**

- Do not place items containing magnetic components such as a credit card, phone card, bank book, or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not immerse your phone in water, liquid, or expose to high humidity. If the phone is expose to liquid, turn it off immediately and bring it to an LG Authorized Service Center.
- Do not paint your phone.

- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers (Ringtones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ringtone to vibration so you don't disturb others.
- Do not turn your phone on or off when putting it to your ear.
- Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely.

## **FDA Consumer Update**



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

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

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

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

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has

authority to take action if wireless phones are shown to emit Radio Frequency (RF) energy at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

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

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

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

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

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

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

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

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

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

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

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

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of Radio Frequency (RF) energy exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use



wireless phones, so we do not know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

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

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

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

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

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

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

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

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

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

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

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

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

measures like those described above to reduce your RF exposure from wireless phone use.

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

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

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

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

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

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

phone and a “compatible” hearing aid at the same time. This standard was approved by the IEEE in 2000.

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

## 12. Where can I find additional information?

For additional information, please refer to the following resources:

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

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

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

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

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

## Laser Safety Statement

### CDRH Compliance

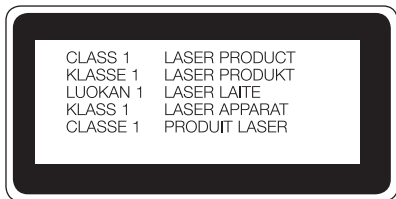
THIS PRODUCT COMPLIES WITH APPLICABLE REQUIREMENT OF THE DHHS PERFORMANCE STANDARD FOR LASER PRODUCT, 21 CFR SUBCHAPTER J.

### Caution!

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

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

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



### **Precautions when using the device**

- When replacing the battery, take extra care to ensure that no foreign substances or water enter the device.
- Ensure that the inside of the device does not make contact with a metallic object or water.
- Press the back cover release key to remove the back cover; do not use force to remove the back cover.
- Make sure to use the USB cable provided; do not use third party USB cables or chargers with your device. The LG limited warranty does not cover the use of third party accessories.
- Failure to follow the instructions in this guide and improper use may damage the device.

### **Driving**

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

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

## 10 Driver Safety Tips

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

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

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Don't take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to-do" list while driving a car, you are not watching where you are going. It is common sense. Do not get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light, or otherwise stationary. But if you need

to dial while driving, follow this simple tip – dial only a few numbers, check the road and your mirrors, then continue.

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

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



## Cautions

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

# CE0168!

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

### Wi-Fi (WLAN)

This equipment may be operated in all European countries.

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



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

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

## DECLARATION OF CONFORMITY

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

### Exposure to radio frequency energy

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

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

- ▶ The radio wave exposure guidelines employ a unit of measurement known as the Specific Absorption Rate (SAR). Tests for SAR are conducted using standardized methods with the phone transmitting at its highest certified power level in all used frequency bands.
- ▶ While there may be differences between the SAR levels of various LG phone models, they're all designed to meet the relevant guidelines for exposure to radio waves.
- ▶ The SAR limit recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) is 2 W/kg averaged over 10g of tissue.
- ▶ The highest SAR value for this model phone tested for use at the ear is 0.862 W/Kg (10g) and when worn on the body is 0.865 W/kg (10g).
- ▶ This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 0.5 cm away from the body. When a carry case, belt clip or holder is used for bodyworn operation, it shouldn't contain metal and should position the product at least 0.5 cm away from your body. In order to transmit data files or messages, this device requires a quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure the above separation distance instructions are followed until the transmission is completed.

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In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.




LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to [opensource@lge.com](mailto:opensource@lge.com). This offer is valid for three (3) years from the date on which you purchased the product.


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

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


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

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

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

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



CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Phone Function	Application	I downloaded an app and it causes a lot of errors. How do I remove it?	<p>1. From the Home screen, swipe left, if necessary &gt; tap the <b>Settings</b> icon .</p> <p>2. Tap <b>Application manager</b>.</p> <p>3. Tap the app &gt; <b>Uninstall</b>.</p> <p><b>NOTE</b> You can also touch and hold the app, then drag it to the Uninstall bar at the top of the screen.</p>
Phone Function	Ringtones	Can I use music files for my ringtones?	<p>Yes. After saving a music file as a ringtone, you can use it anywhere you can set ringtones as an alert.</p> <p><b>To save a music file as a ringtone:</b></p> <p>Touch and hold a song in a library list. In the context menu that opens, tap <b>Set as ringtone</b>, then tap <b>Phone ringtone</b>. The added ringtone becomes your default ringtone.</p> <p><b>NOTE</b> If you tap <b>Caller ringtones</b> instead, you can set the selected song for a specific contact.</p>
Phone Function	Alarm	Will my alarm be audible or will it go off if the phone is turned off?	No, that functionality isn't supported.
Phone Function	Alarm	If my ringer volume is set to <b>Off</b> or <b>Vibrate</b> , will I hear my alarm?	Your alarm is programmed to be audible even in these scenarios.
Recovery Solution	Power Reset	The phone is locked-up and does not function. How can I reset it?	In the case of a malfunction or lock up error, press and hold the Volume Down button and the <b>Power/Lock button</b> at same time for about 11 seconds until device reset.

## Limited Warranty – USA

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

Should your LG Mobile Phone (“Product”) fail due to a defect in materials or workmanship under normal and proper use, during the warranty period set forth below, LG will, at its option, repair or replace the Product. This limited warranty is valid only to the original retail purchaser of the Product and applies only when purchased and used within the United States including U.S. Territories.

Warranty Period	Scope of Warranty
Twelve (12) months from date of original retail purchase (or absent valid proof of purchase, fifteen (15) months from manufacture date)	Parts and Labor (internal/ functional parts only)

- ▶ Replacement products and parts are warranted for the remaining portion of the original warranty period or ninety (90) days, whichever is greater.
- ▶ Replacement products and parts may be new, reconditioned, refurbished, or otherwise factory remanufactured.
- ▶ Replaced Products and parts will become the property of LG.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THE PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THE ABOVE LIMITED WARRANTY. UNDER NO CIRCUMSTANCES SHALL LG OR ITS U.S. DISTRIBUTORS/DEALERS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST GOODWILL, LOST REVENUES OR PROFITS, WORK STOPPAGE,

IMPAIRMENT OF OTHER GOODS, COST OF REMOVAL AND REINSTALLATION OF THE PRODUCT, LOSS OF USE, OR ANY OTHER DAMAGES WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE.

LG'S TOTAL LIABILITY, IF ANY, SHALL NOT EXCEED THE PURCHASE PRICE PAID BY YOU FOR THE PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This limited warranty gives you specific legal rights and you may also have other rights that vary from state to state.

#### **HOW SERVICE IS HANDLED:**

The original sales receipt specifying the Product and date of purchase is required to obtain warranty service.

LG will not re-install or back-up any data, applications, or software that you have added to your Product. It is therefore recommended that you back-up any such data or information prior to sending the Product to LG to avoid permanent loss of such information

You shall bear the cost of shipping the Product to LG Customer Service. LG shall bear the cost of shipping the Product back to you after completion of service under this limited warranty.

#### **THIS LIMITED WARRANTY DOES NOT COVER:**

- (1) Damage or defects of the Product resulting from use of the Product in other than its normal and customary manner.
- (2) Damage or defects of the Product resulting from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications/connection/repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage or defects of the Product caused by shipping, blown fuses, spills of food or liquid.
- (3) Damage or defects of the Product caused by transportation and/or handling, including scratches, dents, chips, and/or other damage to the finish of your Product including the external housing and cosmetic parts,

unless such damage results from defects in materials or workmanship and is reported within one (1) week of delivery (Call: 1-800-793-8896).

- (4) Damage or defects to antennas unless caused directly by defects in material or workmanship.
- (5) Damage or defects of the Product resulting from operating the Product contrary to the instructions outlined in the Product owner's manual.
- (6) That LG Customer Service was not notified by you of the alleged defect or malfunction of the Product during the applicable limited warranty period.
- (7) Products with original serial numbers that have been removed, altered, or cannot be readily determined.
- (8) Damage or defects of the Product or missing items to any Product sold "As Is", "With all Faults" or similar disclaimer.
- (9) Damage or defect of the Product caused by the use of accessories, parts, consumable cleaning products, or service not provided or approved by LG.
- (10) All plastic surfaces and all other externally exposed parts that are scratched or damaged.
- (11) Products operated outside published maximum ratings.
- (12) Replacement of any consumable parts (such as fuses).

**The cost of repair or replacement under the above excluded circumstances shall be borne by you.**

**TO OBTAIN WARRANTY SERVICE AND ADDITIONAL INFORMATION:**

Call 1-800-793-8896 and select the appropriate option from the menu.

Or visit our website at <http://www.lg.com>.

Or by mail: LG Electronics Customer Service P.O. Box 240007 Huntsville, AL 35813 ATTN: CIC – Mobile Handsets

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

Please call or write for procedures for obtaining warranty service.

**PROCEDURE FOR RESOLVING DISPUTES:**

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

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

Notice of Dispute. In the event you intend to commence an arbitration proceeding, you must first notify LG in writing at least 30 days in advance of initiating the arbitration by sending a letter to LG at LG Electronics U.S.A., Inc. Attn: Legal Department- Arbitration 1000 Sylvan Ave, Englewood Cliffs 07632. You and LG agree to engage in good faith discussions in an attempt to amicably resolve your claim. The notice must provide your name, address, and telephone number; identify the product that is the subject of the claim; and describe the nature of the claim and the relief being sought. If you and LG are unable to resolve the dispute within 30 days, either party may proceed to file a claim for arbitration.

Agreement to Binding Arbitration and Class Action Waiver. Upon failure to resolve the dispute during the 30 day period after sending written notice to LG, you and LG agree to resolve any claims between us only by binding arbitration on an individual basis, unless you opt out as provided below. Any dispute between you and LG shall not be combined or consolidated with a dispute involving any other person's or entity's product or claim. More specifically, without limitation of the foregoing,

any dispute between you and LG shall not under any circumstances proceed as part of a class or representative action. Instead of arbitration, either party may bring an individual action in small claims court, but that small claims court action may not be brought on a class or representative basis.

Arbitration Rules and Procedures. To begin arbitration of a claim, either you or LG must make a written demand for arbitration. The arbitration will be administered by the American Arbitration Association (“AAA”) and will be conducted before a single arbitrator under the AAA’s Consumer Arbitration Rules that are in effect at the time the arbitration is initiated (referred to as the “AAA Rules”) and under the procedures set forth in this section. The AAA Rules are available online at [www.adr.org/consumer](http://www.adr.org/consumer). Send a copy of your written demand for arbitration, as well as a copy of this provision, to the AAA in the manner described in the AAA Rules. You must also send a copy of your written demand to LG at LG Electronics, U.S.A., Inc. Attn: Legal Department-Arbitration 1000 Sylvan Avenue Englewood Cliffs, NJ 07632. If there is a conflict between the AAA Rules and the rules set forth in this section, the rules set forth in this section will govern. This arbitration provision is governed by the Federal Arbitration Act. Judgment may be entered on the arbitrator’s award in any court of competent jurisdiction. All issues are for the arbitrator to decide, except that issues relating to the scope and enforceability of the arbitration provision and to the arbitrability of the dispute are for the court to decide. The arbitrator is bound by the terms of this provision.

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

Fees/Costs. You do not need to pay any fee to begin an arbitration. Upon receipt of your written demand for arbitration, LG will promptly pay all arbitration filing fees to the AAA unless you seek more than \$25,000 in damages, in which case the payment of these fees will be governed by the AAA Rules. Except as otherwise provided for herein, LG will pay all

AAA filing, administration and arbitrator fees for any arbitration initiated in accordance with the AAA Rules and this arbitration provision. If you prevail in the arbitration, LG will pay your attorneys' fees and expenses as long as they are reasonable, by considering factors including, but not limited to, the purchase amount and claim amount. Notwithstanding the foregoing, if applicable law allows for an award of reasonable attorneys' fees and expenses, an arbitrator can award them to the same extent that a court would. If the arbitrator finds either the substance of your claim or the relief sought in the demand is frivolous or brought for an improper purpose (as measured by the standards set forth in Federal Rule of Civil Procedure 11(b)), then the payment of all arbitration fees will be governed by the AAA Rules. In such a situation, you agree to reimburse LG for all monies previously disbursed by it that are otherwise your obligation to pay under the AAA Rules. Except as otherwise provided for, LG waives any rights it may have to seek attorneys' fees and expenses from you if LG prevails in the arbitration.

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

Opt Out. You may opt out of this dispute resolution procedure. If you opt out, neither you nor LG can require the other to participate in an arbitration proceeding. To opt out, you must send notice to LG no later than 30 calendar days from the date of the first consumer purchaser's purchase of the product by either: (i) sending an e-mail to [optout@lge.com](mailto:optout@lge.com), with the subject line: "Arbitration Opt Out" or (ii) calling 1-800-980-2973. You must include in the opt out e-mail or provide by telephone: (a) your name and address; (b) the date on which the product was purchased; (c) the product model name or model number; and (d) the

IMEI or MEID or Serial Number, as applicable (the IMEI or MEID or Serial Number can be found (i) on the product box; (ii) on a label on the back of the product beneath the battery, if the battery is removable; or (iii) from the settings menu via the following path: **Settings > About phone > Status**).

You may only opt out of the dispute resolution procedure in the manner described above (that is, by e-mail or telephone); no other form of notice will be effective to opt out of this dispute resolution procedure. Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and you will continue to enjoy the full benefits of the Limited Warranty. If you keep this product and do not opt out, then you accept all terms and conditions of the arbitration provision described above.