

XXXXXXXXXX (1.0)



# About this user guide

ENGLISH

Thank you for choosing LG. Please carefully read this user guide before using the device for the first time to ensure safe and proper use.

- Always use genuine LG accessories. The supplied items are designed only for this device and may not be compatible with other devices.
- This device is not suitable for people who have a visual impairment due to the touchscreen keyboard.
- Descriptions are based on the device default settings.
- Default apps on the device are subject to updates and support for these apps may be withdrawn without prior notice. If you have any questions about an app provided with the device, please contact a LG Service center. For user-installed apps, please contact the relevant service provider.
- Modifying the device's operating system or installing software from unofficial sources may damage the device and lead to data corruption or data loss. Such actions will violate your LG licence agreement and void your warranty.
- Some contents and illustrations may differ from your device depending on the region, service provider, software version, or OS version, and are subject to change without prior notice.
- Software, audio, wallpaper, images, and other media supplied with your device are licensed for limited use. If you extract and use these materials for commercial or other purposes, you may be infringing copyright laws. As a user, you are fully and entirely responsible for the illegal use of media.
- Additional charges may apply for data services, such as messaging, uploading, downloading, auto-syncing and location services. To avoid additional charges, select a data plan suitable to your needs. Contact your service provider to obtain additional details.

## Instructional notices

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### **WARNING**

Situations that could cause injury to yourself or others, or damage to the device or other property.

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### **NOTE**

Notices or additional information.

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# LIMITED WARRANTY STATEMENT

ARBITRATION NOTICE: THIS LIMITED WARRANTY CONTAINS AN ARBITRATION PROVISION THAT REQUIRES YOU AND LG 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.

## Warranty Laws

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

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

## **1. WHAT THIS WARRANTY COVERS:**

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

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

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

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- (5) Products which have had the serial number removed or made illegible.
- (6) This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.
- (7) Damage resulting from use of non LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.
- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

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

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

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

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

Some states do not allow the exclusive limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty

gives you specific legal rights and you may also have other rights which vary from state to state.

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

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

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

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

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

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

## **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.

Agreement to Binding Arbitration and Class Action Waiver. 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, USA, 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 reasonable attorneys' fees and expenses to the extent required by applicable law. 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.

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**Features you will love**









# Capture+

The Capture+ feature allows you to create memos.

## Using Capture+

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

- 1 Touch and slide the status bar downward and tap .
- 2 Create a memo using the following options:

	Tap to undo the most recent action.
	Tap to redo the most recently deleted action.
	Tap to insert text into your memo.
	Tap to select the pen type and color.
	Tap to use the eraser to erase the pen marks on the memo.
	Tap to crop the memo image.
	Tap to share the memo or change the background paper style.
	Tap to hide or display the toolbar.

### NOTE



- While using Capture+, use your fingertip, not your fingernail.

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

## Viewing the saved memo

Tap ○ >  and select the **Capture+** album.

**OR**

Tap ○ >  >  and select the desired memo.

# KnockON

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

## Turning the screen on

- 1 Double-tap the center of the Lock screen to turn the screen on.
- 2 Unlock the screen or access any of the available shortcuts or widgets.

## Turning the screen off

- 1 Double-tap an empty area of the Home screen or the Status Bar.
- 2 The screen will turn off.

### NOTE

- For better recognition performance, tap on the center of the screen, but not on the bottom or on the top of the screen.



# Knock Code

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

## NOTE

- If you enter the wrong Knock Code 6 times, you will be required to enter to backup PIN.
- Use your fingertip instead of your fingernail to tap the screen to turn it on or off.

## Setting up the Knock Code feature

- 1 Tap  >  > **Lock screen** > **Select screen lock** > **Knock Code**.
- 2 Tap the squares in a pattern to set your Knock Code. Your Knock Code pattern can be 6 to 8 taps.

## Unlocking the screen using the Knock Code

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



**Basics**

# Accessories

These accessories are available for use with your device.

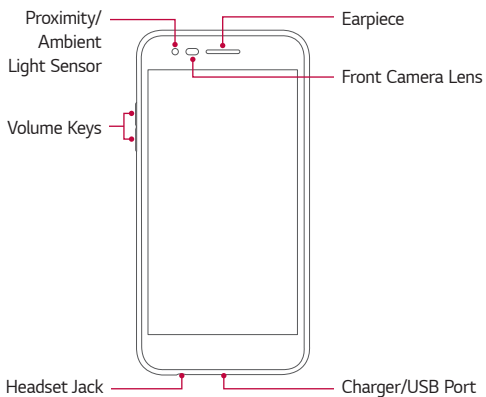
- Travel Adaptor
- Quick Start Guide
- USB Cable
- Battery



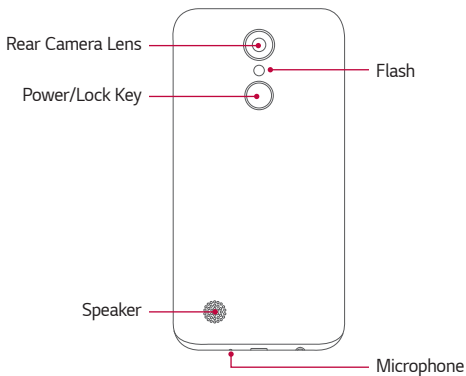
## NOTE

- Items described above may be optional.
- Always use genuine LG accessories. The supplied items are designed only for this device and may not be compatible with other devices.
- The items supplied with the device and any available accessories may vary depending on the region or service provider.

# Device layout







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**Power/Lock Key**

- Turn your device on/off by pressing and holding this key.
  - Press once to turn the screen on/off.
-

## Volume Keys

### While the screen is off:

- Press the **Volume Up Key** twice to launch Capture+.
- Press the **Volume Down Key** twice to launch the Camera.

### On the Home screen:

- Control the ringer volume.

### During a call:

- Control your earpiece volume.

### When playing audio/video:

- Control the volume continuously.



### **NOTE: Proximity Sensor**

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



### **WARNING**

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

# Turning Your Device On and Off

## Turning your device on

Press and hold the **Power/Lock Key** on the back of the device for a couple of seconds until the screen turns on.

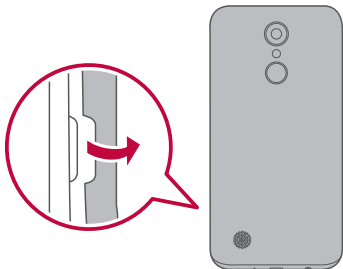
## Turning your device off

- 1 Press and hold the **Power/Lock Key** on the back of the device until the Device options menu appears.
- 2 Tap **Power off** in the Device options menu.
- 3 Tap **POWER OFF** to confirm that you want to turn off the device.

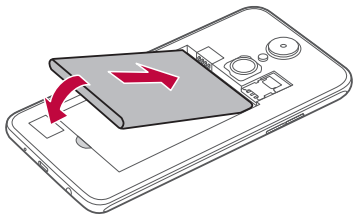
# Installing the battery

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

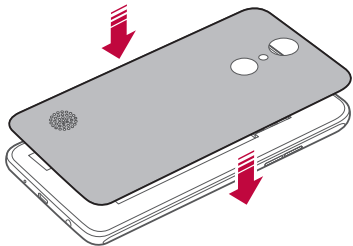
- 1 To remove the back cover, hold the device firmly in one hand. With your other hand, lift off the back cover with your thumbnail as shown in the figure below.



2 Insert the battery.



3 To replace the cover onto the device, align the back cover over the battery compartment and press it down until it clicks into place.



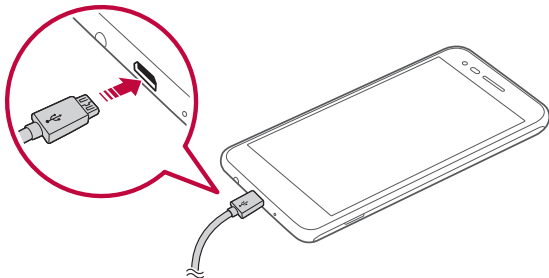
# Charging the battery

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

## **WARNING**

- Use only LG-approved chargers, batteries and cables. The use of unapproved chargers, batteries or cables may cause a battery charging delay. It can also cause the battery to explode or damage the device, which are not covered by the warranty.

The charger connector is located at the bottom of the device. Insert the charger and plug it into a power outlet.



## **NOTE**

- Do not open the back cover while your device is charging.

# Inserting a memory card

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

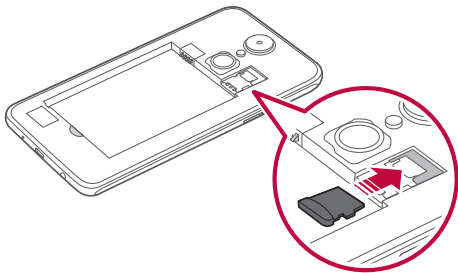
## **WARNING**

- Some memory cards may not be fully compatible with the device. If you use an incompatible card, it may damage the device or the memory card, or corrupt the data stored in it.

## **NOTE**

- If you write and erase data too frequently, it will shorten the memory card lifespan.

- 1 Remove the back cover.
- 2 Insert a memory card with the gold-colored contacts facing downwards.



3 Replace the back cover.

## Removing the memory card

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

1 Tap  >  > **Storage & USB** > .

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

### **WARNING**

- Do not remove the memory card while the device is transferring or accessing information. This behavior can cause data to be lost or corrupted or can damage the memory card or the device. LG is not responsible for losses that result from the abuse or improper use of memory cards, including the loss of data.



# Touch screen tips

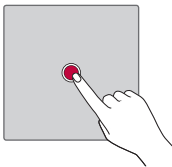
Here are some tips on how to navigate on your device.

## NOTE

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

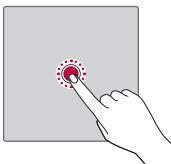
## Tap or touch

Tap or touch to activate your chosen item, link, shortcut, or letter on the on-screen keyboard.



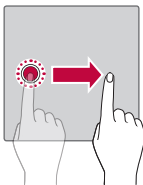
## Touch and hold

Touch and hold an item on the screen by touching it and not lifting your finger until an action occurs.



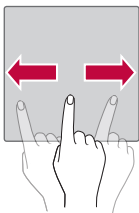
## Drag

Touch and hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You can drag items on the Home screen to reposition them.



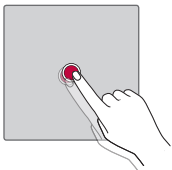
## Swipe or slide

To swipe or slide, quickly move your finger across the surface of the screen, without pausing when you first tap it (so you don't drag an item instead).



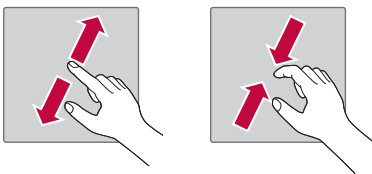
## Double-tap

Double-tap to zoom on a webpage or a map.



## Pinch-to-Zoom



Use your index finger and thumb in a pinching or spreading motion to zoom in or out when using the browser, Maps, or when viewing pictures.





# Google account setup

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

## Creating your Google account

- 1 Tap  >  > **Accounts & sync**.
- 2 Tap **ADD ACCOUNT** > **Google** > **Or create a new account**.
- 3 Enter your first and last name, then tap **NEXT**.
- 4 Enter a username and tap **NEXT**. Your device will communicate with Google servers and check for username availability.
- 5 Enter your password and tap **NEXT**.
- 6 Follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

## Signing into your Google account

- 1 Tap  >  > **Accounts & sync.**
- 2 Tap **ADD ACCOUNT** > **Google.**
- 3 Enter your email address and tap **NEXT.**
- 4 Enter your password and tap **NEXT.**
- 5 After signing in, you can use Gmail and take advantage of Google services on your device.

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



# Locking and unlocking the device

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

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

## Changing the screen lock method

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

- 1 Tap  >  > **Lock screen** > **Select screen lock**.
- 2 Select a desired screen lock from **None**, **Swipe**, **Knock Code**, **Pattern**, **PIN** and **Password**.



### **NOTE**

- Remember the Backup PIN you created when creating your pattern lock.

## Smart Lock

You can use Smart Lock to make unlocking your device easier. You can set it to keep your device unlocked when you have a trusted Bluetooth® device connected to it, when it's in a familiar location like your home or work, when it recognizes your face or voice, or when it detects it's on your body.

### Setting up Smart Lock feature


- 1 Tap  >  > **Lock screen** > **Smart Lock**.
- 2 Follow the instructions on the screen.

#### **NOTE**

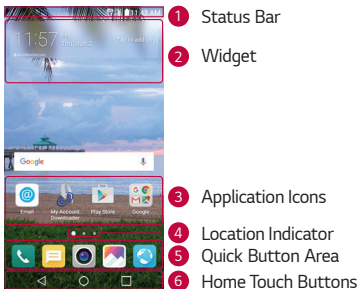
- Before you add any trusted items or on-body detection, you need to set up a screen lock (Knock Code, Pattern, PIN or Password).



# Home screen




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

## Getting to Know the Home Screen



- 1 **Status Bar** - Shows the device's status information, including the time, signal strength, battery status and notification icons.
- 2 **Widget** - Widgets are self-contained applications that can be accessed through the Home screen. Unlike a shortcut, the Widget can function as an on-screen application.

- 3 Application Icons** - Tap an icon (application, folder, etc.) to open and use it.
- 4 Location Indicator** - Indicates which Home screen canvas you are currently viewing.
- 5 Quick Button Area** - Provides one-touch access to the function in any Home screen canvas.
- 6 Home Touch Buttons**

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

## To view other Home screen panels


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

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

## Returning to recently-used applications

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

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

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

## Customizing the Home screen

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

### Editing the Home screen

On the Home screen, touch and hold on an empty space of the Home screen.

- To rearrange the Home screen canvases, touch and hold on a canvas, then drag it to another location.
- To add widgets to the Home screen, tap **Widgets** and drag a widget to the Home screen.

- To change the Home screen settings, tap **Home screen settings** and customize the desired options.
- To view a list of apps that have been uninstalled in the previous 24 hours, tap **Uninstalled apps**.

## Moving apps on the Home screen

On the Home screen, touch and hold an app, then drag it to another location.

- To keep frequently used apps at the bottom of the Home screen, touch and hold an app, then drag it to the quick access area at the bottom.
- To remove an icon from the quick access area, drag the icon to the Home screen.

## Using folders from the Home screen

### Creating folders

On the Home screen, touch and hold an app, then drag it over another app.

- A new folder is created and the app is added to the folder.

### Editing folders


On the Home screen, tap a folder and then do one of the following:

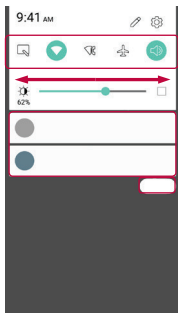
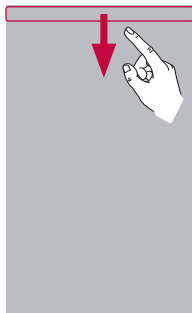
- To edit the folder name and color, tap the folder name.
- To remove an app from the folder, touch and hold the app and drag it to the outside the folder. If only one app is left in the folder, the folder disappears automatically.

## Notifications panel

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

### Opening the notifications panel


Swipe down from the status bar to open the notifications panel. To close the notifications panel, swipe the screen upwards or tap .



1 Quick Settings Area

2 Notifications

3 Clear

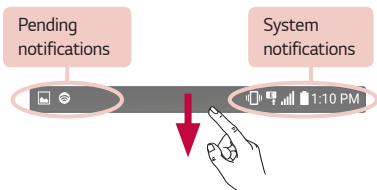
- 1 Tap each quick setting button to toggle it on/off. Touch and hold the desired button to directly access the settings menu for the function. To see more toggle buttons, swipe left or right. Tap  to remove, add or rearrange the quick setting buttons.
- 2 Current notifications are listed, each with a brief description. Tap a notification to view it.

- 3 Tap to clear all the notifications.



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



## Indicator icons on the Status Bar











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












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

Icon	Description
	No SIM card inserted
	No network signal available

Icon	Description
	A song is currently playing
	Ringer is silenced



	Airplane mode is on
	Connected to a Wi-Fi network
	Wired headset (with microphone) connected
	Call in progress
	Missed call
	Bluetooth is on
	System warning
	An alarm is set
	New voicemail available
	New text or multimedia message

	Vibrate mode is on
	Battery fully charged
	Battery is charging
	The phone is connected to a PC via a USB cable
	Downloading data
	Uploading data
	GPS is on
	Choose input method
	NFC is on

### NOTE

- The icon's location in the status bar may differ depending on the function or service.






# Capturing a screenshot

Press and hold the **Volume Down Key** and the **Power/Lock Key** at the same time for 2 seconds to capture a screenshot of the current screen. To view the captured image, tap  >  > the **Screenshots** folder.

# On-screen keyboard

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

## Using the keypad and entering text

Icon	Description
	Tap once to capitalize the next letter you type. Double-tap for all caps.
	Tap to go to the keyboard settings. Touch and hold to enter text by voice or access the clip tray.
	Tap to enter a space.
	Tap to create a new line.
	Tap to delete the previous character.



## Entering special characters

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

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



### NOTE

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

# Transferring data between a PC and the device

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

## Transferring data using USB connection

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



### NOTE

- The LG Android Platform Driver is required to be installed on your PC to be able to detect the device.
- Check the requirements for using **File transfer**.

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



**Apps**

# Installing or uninstalling apps

Play Store allows you to browse and search for free and paid applications.

## To open the Play Store app



Tap  > .

## To open a screen with details about an app

At any time while browsing in Play Store, tap an app to open its details screen.

The App details screen includes a description, ratings, comments, and related information about the app. From this screen, you can download, install, uninstall, rate the app, and more.






## To uninstall applications

- 1 Tap  >  > **Apps**.
- 2 Once all applications appear, scroll to and select the application you want to uninstall.
- 3 Tap **Uninstall**.

# Calls

You can enjoy clear calling across the region.

## Making a call





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





### NOTE

- To enter "+" to make international calls, touch and hold  +.


## Calling your contacts

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




## Answering and rejecting a call

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


### NOTE

- Swipe  if you want to decline a call and send a message to the caller.



## Making a second call

- 1 During your first call, tap  > **Add call** and enter the number.
- 2 Tap . Your initial call is locked and put on hold.
- 3 To end all calls, tap .


### NOTE

- You may be charged for each call you make. Contact your service provider for more information.
- To merge both calls into a conference call, tap .

## Viewing your call logs




- 1 Tap  >  > **Call logs** tab.
- 2 A list of all dialed, received and missed calls is displayed.

### NOTE

- Tap any call log entry to view the date, time and duration of the call.
- Tap  > **Delete all** to delete all of the recorded items.

## Change your call settings




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

- 1 Tap  > .
- 2 Tap  > **Call settings** and configure the desired options.




# Contacts

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

## Searching for a contact

- 1 Tap  >  > .
- 2 Tap **Search contacts** and enter the contact name using the keyboard. Matches are displayed as you begin to type.

## Adding a new contact




- 1 Tap  > .
- 2 Enter the new contact's number.
- 3 Tap  > **Add to Contacts** > **Create contact**.
- 4 If you want to add a picture to the new contact, tap the image icon. Choose **Take photo** or **Select photo**.
- 5 Enter the desired information for the contact.
- 6 Tap **SAVE**.

## Favorites contacts




You can classify frequently called contacts as favorites.







## Adding a contact to your favorites

- 1 Tap  >  > .
- 2 Tap a contact to view its details.
- 3 Tap the star at the top right of the screen. The star will be highlighted.

## Removing a contact from your favorites list

- 1 Tap  >  >  and scroll to the **FAVORITES** section.
- 2 Choose a contact to view its details.
- 3 Tap the highlighted star at the top right of the screen. The highlight will be removed from the star and the contact is removed from your favorites.

## Creating a group

- 1 Tap  >  >  > **Groups** tab.
- 2 Tap  > **New group**.
- 3 Enter a name for the new group. You can also set a distinct ringtone for the newly created group.
- 4 Tap **Add members** to add contacts to the group and tap **ADD**.
- 5 Tap **SAVE** to save the group.

### **NOTE**

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

# Messaging


Your device combines text and multimedia messaging into one intuitive, easy to use menu.

## NOTE

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

## Sending a message


1 Tap  >  > .


2 Tap , then select one or more entries from your Contacts list.

### OR

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

3 Tap the text field and start entering your message.

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

5 Tap  to attach the file that you want to share with message.

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

## Conversation view

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

## Changing your messaging settings

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


- Tap  >  >  > **Settings**.

# Camera

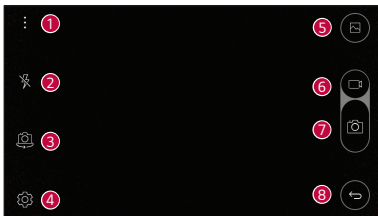
You can use the camera or camcorder to take and share pictures and videos.


- Tap  > .

## Taking a photo







- 1 Frame your subject on the screen.
- 2 Green squares around the subject indicates that the camera has focused.
- 3 Tap  to take a photo. Your picture will be automatically saved to the Gallery.

## Viewfinder options




**1**  Tap to hide/display the camera options on the viewfinder.



**2**  Tap to manage the camera's flash.

3		Tap to swap between the rear camera lens and the front camera lens.
4		Tap to open the camera settings menu.
5		Tap to view the last photo or video you recorded.
6		Tap to start recording.
7		Tap to take a photo.
8		Tap to exit the camera.

## Interval shot

You can take Interval shots using the front camera lens. Touch and hold  to automatically take 4 selfies in a row.

## Burst shot

You can take Burst shots using the rear camera lens. Touch and hold  to take a barrage of photos in a row until the Capture button is released. The viewfinder displays the number of shots taken. When viewing Burst shots in the Gallery, tap  to display each shot in sequence (similar to a viewing flipbook).

## Gesture shot

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

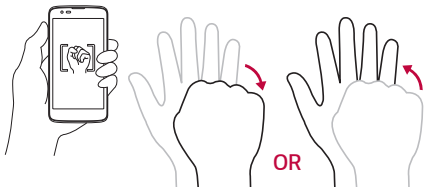
### Using a gesture to take photos

There are two methods for using the Gesture shot feature.

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

#### OR

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









## Multi-point Auto-focus




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

## Once you have taken a photo

Tap the image thumbnail on the screen to view the last photo you took.



	Tap to edit the photo.
	Tap to take another photo immediately.
	Tap to share the photo.
	Tap to delete the photo.
	Tap to access additional options.
	Tap to add the photo to your favorites.

## Recording a video


- 1 Tap  > .
- 2 Frame your subject on the screen.
- 3 Tap  to start recording the video. The length of the recording is displayed at the top of the screen.

### NOTE

- Tap  to take pictures while recording video.






4 Tap  to pause the recording. You can resume recording by tapping .

**OR**

Tap  to stop recording. Your video will be automatically saved to the Gallery.

## After recording a video



Tap the video thumbnail on the screen to view the last video you recorded.

	Tap to record another video immediately.
	Tap to share the video.
	Tap to delete the video.
	Tap to access additional options.
	Tap to add the video to your favorites



# Gallery

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

- 1 Tap  > .
- 2 Tap an album to open it and view its contents. (The pictures and videos in the album are displayed in chronological order.)
- 3 Tap a picture in an album to view it.

## NOTE

- Depending on the software installed, some file formats may not be supported.
- Some files may not play properly due to their encoding.
- If the file size exceeds the available memory, an error can occur when you open files.

## Viewing pictures

The Gallery displays your pictures in folders. When an application, such as Email, saves a picture, a folder is automatically created to contain the picture.

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

## Editing photos

While viewing a photo, tap .

## Setting wallpaper



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

## Zooming in and out

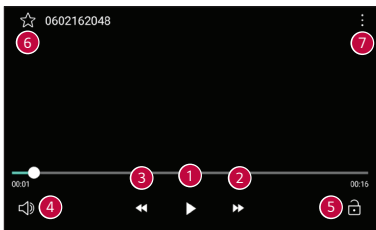
Use one of the following methods to zoom in on an image:

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

## Playing a video

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

## Video options





1		Tap to pause/resume video playback.
2		Touch and hold to fast-forward in 3 second increments. Tap to fast-forward 10 seconds.
3		Touch and hold to rewind in 3 second increments. Tap to rewind 10 seconds.
4		Tap to adjust the video volume.
5		Tap to lock/unlock the screen.
6		Tap to add the video to your favorites.
7		Tap to access additional options.

 **NOTE**

- While playing a video, slide the right side of the screen up or down to adjust the sound.
- While playing a video, slide the left side of the screen up or down to adjust the brightness.
- While playing a video, slide your finger from left to right (or vice versa) to fast-forward and rewind.

## Deleting photos/videos

Use one of the following methods:

- While in a folder, tap , select the photos/videos and then tap **DELETE**.
- While viewing a photo, tap .

# Email

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

- Tap  > .

## Adding an account

The first time you open the Email application, a setup wizard opens to help you add an email account. You can also add your email account using the **Settings** menu.


- Tap  > **Settings** > .



## Working with account folders

- Tap  > **Show all folders**.

Each account has Inbox, VIP, Sent, and Drafts. Depending on the features supported by your account's service provider, you may have additional folders.

## Composing and sending email



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

- 3 Tap the **Cc/Bcc** field to copy or blind copy other contacts/email addresses.
- 4 Tap the text field and enter your message.
- 5 Touch and hold the text field to edit selected words. (Bold/Italic/Underline/Text Color)
- 6 Tap  to attach the file you want to send with your message.
- 7 Tap  to send the message.

## Changing the Email app general settings

- Tap  > **Settings** > **GENERAL**.

## Deleting an email account

- Tap  > **Settings** >  > **Remove account** > Select the account to delete (if necessary) > **REMOVE** (if necessary) > **REMOVE**.



# Music

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

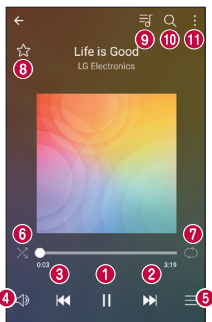
## NOTE

- Depending on the software installed, some file formats may not be supported.
- If the file size exceeds the available memory, an error can occur when you open files.
- Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a licence to reproduce or copy music. In some countries, national laws prohibit private copying of copyrighted material. Before downloading or copying the file, please check the national laws of the relevant country concerning the use of such material.

## Playing a song








- 1 Tap  > .
- 2 Select a music category tab at the top of the screen.
- 3 Tap the song you want to play.

## Music player options



1		Tap to pause playback.
	▶	Tap to resume playback.
2	⏭	Tap to skip to the next track in the album, playlist or shuffle list. Touch and hold to fast-forward.
3	⏮	Tap to restart the current track or skip to the previous track in the album, playlist or shuffle list. Touch and hold to rewind.
4	🔊	Tap to adjust the volume.



5		Tap to see the music library.
6		Tap to play the current playlist in shuffle mode (tracks are played in random order).
7		Tap to toggle through repeat all songs, repeat current song and repeat off.
8		Tap to add the song to your favorites.
9		Tap to open the current playlist.
10		Tap to search for music files.
11		Tap to access additional options.


# Clock

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

- Tap  >  > .

## Alarms

The Alarm tab allows you to set alarms.


- 1 Tap the **Alarm** tab.
- 2 Tap  to add a new alarm.
- 3 Adjust the settings as necessary and tap **SAVE**.

### NOTE

- You can also tap an existing alarm to edit it.

## World clock

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

- 1 Tap the **World clock** tab.
- 2 Tap  and search for the desired city.

## Timer

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

- 1 Tap the **Timer** tab.
- 2 Set the desired time on the timer.
- 3 Tap **Start** to start the timer.
- 4 Tap **Stop** to stop the timer.




## Stopwatch

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


- 1 Tap the **Stopwatch** tab.
- 2 Tap **Start** to initiate the stopwatch.
  - Tap **Lap** to record lap times.
- 3 Tap **Stop** to stop stopwatch.

# Calculator

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





- 1 Tap  >  > .
- 2 Tap the number buttons to enter numbers.
- 3 For simple calculations, tap the function you want to perform (+, -, x or ÷) followed by =.

## NOTE

- For more complex calculations, tap  > **Scientific calculator**.

# Calendar








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

- 1 Tap  >  > .
- 2 Tap the date you want to add an event to. Then tap .


# Voice Recorder

The Voice Recorder app records audible files for you to use in a variety of ways.

## Recording a sound or voice

- 1 Tap  >  > .
- 2 Tap  to begin recording.
- 3 Tap  to end the recording.
- 4 Tap  to pause the recording.
- 5 Tap  to listen to the recording.

### NOTE

- Tap  to access your recordings. You can listen to your saved recordings.

## Downloads

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

- Tap  >  > .

# Google apps

Google provides entertainment, social network, and business apps. You may require a Google account to access some apps.

To view more app information, access each app's help menu.

## NOTE

- Some apps may not be available depending on the region or service provider.

## Google

Search quickly for items on the Internet or your device.

## Chrome

Search for information and browse webpages.

## Gmail

Send or receive emails via the Google Mail service.

## Maps

Find your location on the map, search for locations, and view location information for various places.

## YouTube

Watch or create videos and share them with others.

## Drive

Store your content on the cloud, access it from anywhere, and share it with others.

## Play Music

Discover, listen to, and share music on your device.

## Play Movies & TV

Watch movies and TV shows purchased from the Play Store.

## Hangouts

Chat with your friends individually or in groups and use images, emoticons, and video calls while you are chatting.

## Photos

Manage photos, albums, and videos that you have saved on the device and uploaded to Google+.



# Settings



# Access the Settings menu

The Settings app allows you to customize and personalize your device.

## Opening the settings app

- Tap  > touch and hold  > **System settings**.

**OR**

- Tap  > .

# Wireless Networks

## Airplane mode


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

On the **Settings** screen, tap **Airplane mode**.

## Wi-Fi

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

On the **Settings** screen, tap **Wi-Fi**.

- 1 Tap  to turn Wi-Fi on and start scanning for available Wi-Fi networks.
- 2 Tap a network to connect to it.
  - If the network is secured with a lock icon, you will need to enter a security key or password.
  - The status bar displays icons that indicate Wi-Fi status.

### **NOTE**

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


## Bluetooth

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

### NOTE

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

## Pairing your device with another Bluetooth device

- 1 On the **Settings** screen, tap **Bluetooth**.
- 2 Tap  to turn Bluetooth on and start scanning for available Bluetooth devices.
  - If you want to detect the visible devices in range additionally, tap **SEARCH**.
- 3 Choose the device you want to pair with from the list. Once the pairing is successful, your device connects to the other device.

 **NOTE**

- Pairing between two Bluetooth devices is a one-time process. Once a pairing has been created, the devices will continue to recognize their partnership and exchange information.
- Please consult documentation included with Bluetooth device for information on pairing mode and passcode (typically 0 0 0 0 – four zeroes).


## Sending data via Bluetooth

- 1 Select a file or item, such as a contact or media file.
- 2 Select the option for sending data via Bluetooth.
- 3 Search for and pair with a Bluetooth-enabled device.

 **NOTE**


- Due to different specifications and features of other Bluetooth-compatible devices, display and operations may be different, and functions such as transfer or exchange may not be possible with all Bluetooth compatible devices.

## Receiving data via Bluetooth

- 1 On the **Settings** screen, tap **Bluetooth**.
- 2 Tap  to turn Bluetooth on.
- 3 You will receive data from the sending device. Be sure to select **ACCEPT**.

## Mobile data

Displays the data usage and mobile data usage limit.

- 1 On the **Settings** screen, tap **Mobile data**.
- 2 Tap  to toggle your mobile data connection On or Off. This allows you to manage your mobile data usage. You can use a Wi-Fi network connection for data instead.

## Call

You can customise call settings, such as voice call and international call options.

On the **Settings** screen, tap **Call**.

### NOTE

- Some features may not be supported, depending on the device manufacturer or service provider.

## Advanced Calling

You can turn on or off HD Voice.

On the **Settings** screen, tap **Advanced Calling**.


### NOTE

- HD Voice may not be supported depending on the area or service provider.

# Tethering

## USB tethering

You can connect the device to another device via USB and share mobile data.

- 1 Connect your device and other devices via USB cable.
- 2 On the settings screen, tap **Tethering** > **USB tethering** and then drag  to activate it.




### NOTE

- This option uses mobile data and may incur data usage fees, depending on your pricing plan. Consult with your service provider for more information.
- When connecting to a computer, download the USB driver from [www.lg.com](http://www.lg.com) and install it on the computer.
- You cannot send or receive files between your device and a computer while USB tethering is turned on. Turn off USB tethering to send or receive files.
- Operating systems that support tethering are Window XP or higher, or Linux.

## Wi-Fi 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.

- 1 On the settings screen, tap **Tethering** > **Wi-Fi Hotspot** and then drag  to activate it.
- 2 Tap **Set up Wi-Fi Hotspot** and enter the Wi-Fi ID (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 the network password.

 **NOTE**

- 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>

## Bluetooth tethering

A Bluetooth-connected device can connect to the Internet by using your device's mobile data.

- 1 On the settings screen, tap **Tethering** > **Bluetooth tethering** and then drag  to activate it.
- 2 Turn on Bluetooth on both devices, and pair them.

 **NOTE**

- 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#Bluetooth\\_tethering](http://www.android.com/tether#Bluetooth_tethering)

## Help

You can view help on using tethering and hotspots.

On the settings screen, tap **Tethering** > **Help**.

## Mobile networks

This menu allows you to configure various mobile network settings such as **Mobile data**, **Data roaming**, etc.

On the **Settings** screen, tap **More** > **Mobile networks**.

## VPN

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

On the **Settings** screen, tap **More** > **VPN**.

## Emergency alerts

If emergency alerts are issued, those alerts will appear on this menu.

On the **Settings** screen, tap **More** > **Emergency alerts**.

## Printing

Allows you to print the content of certain screens (such as web pages displayed in Chrome) to a printer connected to the same Wi-Fi network as your Android device.

On the **Settings** screen, tap **More** > **Printing**.



# Device

## Sound & notification

Allows you to change settings for various sounds on the device.

On the **Settings** screen, tap **Sound & notification**.

- **Sound profile** – Allows you to set your device's sound profile.
- **Volume** – Adjust the device's volume settings to suit your needs and environment.
- **Ringtone** – Allows you to set the ringtones for calls. You can also add and delete ringtones.
- **Ringtone ID** – Allows you to compose ringtones based on the incoming call's phone number.
- **Sound with vibration** – Enable to set the device to vibrate in addition to the ringtone when you receive calls.
- **Vibration type** – Allows you to choose the type of vibration.
- **Do not disturb** – Allows you to set a schedule when to prevent interruptions from notifications. You can set to allow certain features to interrupt when Priority only is set.
- **Lock screen** – Allows you to choose if you want to show or hide notifications on the lock screen.
- **Apps** – Allows you to set notifications for individual apps including preventing them from displaying notifications and setting priority.
- **Notification sound** – Allows you to set the notification sound. You can also add and delete notification sounds.

- **Vibrate on tap** – Enable to vibrate when tapping the Home touch buttons and during other UI interactions.
- **Sound effects** – This menu lets you select whether you hear tones when tapping numbers on the dial pad, selecting on-screen options, when locking and unlocking the screen, and the emergency tone behavior.
- **Message/call voice notifications** – Allows your device to read out incoming calls and message events automatically.

## Display

Allows you to set other display settings.

On the **Settings** screen, tap **Display**.

- **Font type** – Select the desired font type.
- **Font size** – Select the desired font size.
- **Bold text** – Bold the text on the screen.
- **Brightness** – Adjust the screen brightness by using the slider.
- **Reader mode** – Set the device to reduce amount of blue light on screen to reduce eye strain.
- **Auto-rotate screen** – Set to switch orientation automatically when you rotate the device.
- **Screen timeout** – Set the time delay before the screen automatically turns off.
- **Home touch button combination** – Set the Home touch buttons displayed at the bottom of all screens.

- **Daydream** – Select the screen saver to be displayed when the device is sleeping while docked and/or charging.
- **Motion sensor calibration** – Allows you to improve the accuracy of the tilt and speed of the sensor.

## Home screen

Allows you to set your home screen settings.

On the **Settings** screen, tap **Home screen**.

- **Select Home** – Select the desired Home theme.
- **Wallpaper** – Sets the wallpaper to use on your Home screen.
- **Screen swipe effect** – Choose the desired type of effect to display when you swipe from one Home screen canvas to the next.
- **Sort apps by** – Sort apps by names or download date on the Home screen.
- **Grid** – Change the app arrangement mode for the Home screen.
- **Hide apps** – Select the apps you want to hide from the Home screen.

## Lock screen

Allows you to set your lock screen settings.

On the **Settings** screen, tap **Lock screen**.

- **Select screen lock** – Allows you to set a screen lock type to secure your device.
- **Smart Lock** – Sets to keep your device unlocked with trusted device or a place. If you need more information, please refer to **Smart Lock** section in **Locking and unlocking the device**.

- **Screen swipe effect** – Sets the effect used when swiping the lock screen.
- **Wallpaper** – Select the wallpaper to display for your lock screen.
- **Shortcuts** – Allows you to choose the shortcuts available on the lock screen.
- **Contact info for lost phone** – Allows you to display the owner information on the lock screen in case the device is lost.
- **Lock timer** – Allows you to set the amount of time before the screen automatically locks after the screen has timed-out.
- **Power key instantly locks** – Enable to instantly lock the screen when the Power/Lock Key is pressed. This setting overrides the lock timer setting.

## Storage & USB

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

On the **Settings** screen, tap **Storage & USB**.

## Battery & power saving

Displays the current battery status including the percentage of remaining charge and charging state.

On the **Settings** screen, tap **Battery & power saving**.

- **Battery usage** – Displays the battery usage level and battery use details. Tap one of the items to see more detailed information.
- **Battery percentage on status bar** – Enable to display the battery level percentage on the Status Bar next to the Battery icon.

- **Battery saver** – Tap the Battery Saver switch to toggle it on or off. Sets the battery charge percent level that automatically turns on Battery Saver.
- **Help** – Displays help information for the Battery saver feature.

## Memory

You can monitor the memory used on average and the memory used by apps in the device.

On the **Settings** screen, tap **Memory**.

## Apps

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

On the **Settings** screen, tap **Apps**.

## Personal

### Location

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

On the **Settings** screen, tap **Location**.

- **Mode** – Sets the how your current location information is determined.
- **RECENT LOCATION REQUEST** – Displays apps that have recently requested location information.
- **Low power location estimation** – Estimate the device location by using low power consumption.
- **Camera** – Enable to tag photos or videos with their locations.
- **Google Location History** – Allows you to choose your location information settings as accessed by Google and its products.

## Security

Use this menu to configure how to help secure your device and its data.

On the **Settings** screen, tap **Security**.

- **Content lock** – Select lock types to lock memos for QuickMemo+.
- **Encrypt phone** – Allows you to encrypt data on the device for security. You will be required to enter a PIN or password to decrypt your device each time you power it on.
- **Encrypt SD card** – Encrypt SD card storage and keep data unavailable for other devices.
- **Set up SIM card lock** – Sets the PIN to lock your SIM card and allows you to change the PIN.
- **Password typing visible** – Enable to briefly show each character of passwords as you enter them so that you can see what you enter.
- **Phone administrators** – View or deactivate device administrators.

- **Unknown sources** – Allow installation of non-Play Store applications.
- **Verify apps** – Disallow or warn before installation of apps that may cause harm.
- **Credential protection** – Displays the current credential protection type.
- **Certificate management** – Allows you to manage your security certificates.
- **Trust agents** – Select apps to use without unlocking screen.
- **Screen pin** – Allows you to pin a screen to keep the current screen in view until you unpin it.
- **Usage access for apps** – Allows you to view usage information of apps on your device.

## Accounts & sync

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

On the **Settings** screen, tap **Account & sync**.

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

- **Auto-sync data** – Enable this option to automatically sync all accounts you've added on your device.
- **ACCOUNTS** – Displays all of your added accounts. Tap one to view and/or manage it.

- **ADD ACCOUNT** – Tap to add new account.

## Language & keyboard

Allows you to change the text input settings.

On the **Settings** screen, tap **Language & keyboard**.

Select the language for the text on your device and for the on-screen keyboard.

- **Language** – Choose a language to use on your device.
- **Current keyboard** – Allows you to select the keyboard you want to use currently.
- **LG Keyboard** – Tap to change the LG Keyboard settings.
- **Google voice typing** – Tap to change the voice input settings.
- **Text-to-speech output** – Tap to set the preferred engine or general settings for text-to-speech output.
- **Pointer speed** – Adjust the pointer speed.
- **Reverse buttons** – Reverse the mouse buttons to use the primary button on the right.

## Backup & reset

Change the settings for managing your settings and data.

On the **Settings** screen, tap **Backup & reset**.

- **Back up my data** – Back up app data, Wi-Fi passwords, and other settings to Google servers.
- **Backup account** – Displays the account that is currently being used to back up information.



- **Automatic restore** – When reinstalling an app, restore backed up settings and data.
- **Network settings reset** – Reset all network settings.
- **Factory data reset** – Reset your settings to the factory default values and delete all your data. If you reset the device this way, you are prompted to re-enter the same information as when you first started Android.

## Google services

Use this menu to manage your Google apps and account settings.

On the **Settings** screen, tap **Google services**.

## System

### Shortcut keys

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

On the **Settings** screen, tap **Shortcut keys**.

- Press the **Volume Up Key** twice when the screen is off or locked to open the Capture+ app.
- Press the **Volume Down Key** twice when the screen is off or locked to open the Camera app.

## Date & time

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

On the **Settings** screen, tap **Date & time**.

## Accessibility

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

On the **Settings** screen, tap **Accessibility**.

- **Vision** – Sets options for people with impaired sight.
  - **TalkBack** – Allows you to set up the TalkBack function which assists people with impaired vision by providing verbal feedback.
  - **Message/call voice notifications** – Enable to allows you to hear automatic spoken alerts for incoming calls and messages.
  - **Font size** – Sets the font size.
  - **Bold text** – Bold the text on the screen.
  - **Touch zoom** – Allows you to zoom in and out by triple-tapping the screen.
  - **Screen color inversion** – Enable to invert the color of the screen and content.
  - **Screen color adjustment** – Allows you to adjust the color of screen and content.
  - **Grayscale** – Switch the screen to grayscale mode.
  - **End calls with the Power key** – Enable so that you can end voice calls by pressing the Power/Lock Key.

- **Hearing** – Sets options for people with impaired hearing.
  - **Captions** – Allows you to customize caption settings for those with hearing impairments.
  - **Flash alerts** – Enable to set the flash to blink for incoming calls and notifications.
  - **Turn off all sounds** – Enable to turn off all device sounds.
  - **Audio type** – Sets the audio type.
  - **Sound balance** – Sets the audio route. Move the slider on the slide bar to set it.
- **Motor & cognition** – Sets options for people with impaired motor skills.
  - **Touch assistant** – Show a touch board with easy access to common actions.
  - **Touch and hold delay** – Adjust the touch input time.
  - **Touch and hold for calls** – Answer or decline calls by tapping and holding the call button instead of dragging it.
  - **Screen timeout** – Sets the amount of time before the backlight turns off automatically.
  - **Touch control areas** – Allows you to select an area of the screen to limit touch activation to just that area of the screen.
- **Accessibility features shortcut** – Allow you to access selected features quickly when triple-tapping the Home button.
- **Auto-rotate screen** – Enable to allow the device to rotate the screen depending on the physical device orientation (portrait or landscape).

- **Switch Access** – Allows you to interact with your device using one or more switches that work like keyboard keys. This menu can be helpful for users with mobility limitations that prevent them from interacting directly with the your device.

## About phone

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

On the **Settings** screen, tap **About phone**.



# Appendix

# Device software update

## LG Mobile Device software update via Over-the-Air (OTA)

This feature allows you to conveniently update your device's software to a newer version via OTA, without connecting using a USB data cable.

This feature will only be available if and when LG makes a newer firmware version available for your device.

You should first check the software version on your mobile device: **Settings** > **About phone** > **Update Center** > **Software Update** > **Update now**.





### NOTE

- Your personal data from internal device storage—including information about your Google account and any other accounts, your system/application data and settings, any downloaded applications and your DRM licence—might be lost in the process of updating your device's software. Therefore, LG recommends that you backup your personal data before updating your device's software. LG does not take responsibility for any loss of personal data.
- This feature depends on your network service provider, region and country.

# FAQ

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

Message	Possible causes	Possible corrective measures
SIM card error	There is no SIM card in the device or it is inserted incorrectly.	Make sure that the SIM card is correctly inserted.
No network connection/ Dropped network	Signal is weak or you are outside the carrier network.	Move toward a window or into an open area. Check the network operator coverage map.
	Operator applied new services.	Check whether the SIM card is more than 6~12 months old. If so, change your SIM or USIM card at your network provider's nearest branch. Contact your service provider.

Message	Possible causes	Possible corrective measures
Codes do not match	To change a security code, must need to confirm the new code by re-entering it.	If you forget the code, contact your service provider.
	The two codes you entered do not match.	
No applications can be set	Not supported by service provider or registration required.	Contact your service provider.
Downloaded application causes a lot of errors.	Remove the application.	<ol style="list-style-type: none"> <li>1 Tap  &gt; .</li> <li>2 Tap <b>Apps</b>.</li> <li>3 Tap the app &gt; <b>Uninstall</b>.</li> </ol>
Calls not available	Dialing error	New network not authorized.
	New SIM card inserted.	Check for new restrictions.
	Pre-paid charge limit reached.	Contact service provider or reset limit with PIN2.



<b>Message</b>	<b>Possible causes</b>	<b>Possible corrective measures</b>
Device cannot be turned on	On/Off key pressed too briefly.	Press the On/Off key for at least two seconds.
	Battery is not charged.	Charge battery. Check the charging indicator on the display.
Charging error	Battery is not charged.	Charge battery.
	Outside temperature is too hot or cold.	Make sure device is charging at a normal temperature.
	Contact problem	Check the charger and its connection to the device.
	No voltage	Plug the charger into a different outlet.
	Charger defective	Replace the charger.
	Wrong charger	Use only original LG accessories.
Impossible to receive/ send SMS & photos	Memory full	Delete some data, such as applications or messages from your device to make more memory available.

Message	Possible causes	Possible corrective measures
Files do not open	Unsupported file format	Check the supported file formats.
No sound	Vibration mode	Check the settings status in the sound menu to make sure you are not in vibration or no interruptions mode.
Hangs up or freezes	Intermittent software problem	<p>If the screen freezes or the device does not respond when you try to operate it, remove the battery and reinsert it. Then power the device back on.</p> <p><b>OR</b></p> <p>Try to perform a software update through the website.</p>

# 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 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.

# More information

## Open Source Software Notice Information

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>.

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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- Wi-Fi® and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance.
- All other trademarks and copyrights are the property of their respective owners.



**For Your Safety**

## HAC statement

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer. 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 use with the back of the phone kept 0.39 inches (1.0 cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1.0 cm) must be maintained between the user's body and the back of the phone.

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

## Consumer Information About Radio Frequency Emissions

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

### **Are wireless phones safe?**

Scientific research on the subject of wireless phones and radio frequency ("RF") energy has been conducted worldwide for many years, and continues. In the United States, the Food and Drug Administration ("FDA") and the Federal Communications Commission ("FCC") set policies and procedures for wireless phones. The FDA issued a website publication on health issues related to cell phone usage where it states, "The scientific community at large ... believes that the weight of scientific evidence does not show an association between exposure to radiofrequency (RF) from cell phones and adverse health outcomes. Still the scientific community does recommend conducting additional research to address gaps in knowledge. That research is being conducted around the world and FDA continues to monitor developments in this field. You can access the joint FDA/FCC website at <http://www.fda.gov> (under "c" in the subject index, select Cell Phones > Research). You can also contact the FDA toll-free at (888) 463-6332 or (888) INFO-FDA.

In June 2000, the FDA entered into a cooperative research and development agreement through which additional scientific research is being conducted. The FCC issued its own website publication stating that “there is no scientific evidence that proves that wireless phone usage can lead to cancer or a variety of other problems, including headaches, dizziness or memory loss.” This publication is available at <http://www.fcc.gov/cgb/cellular.html> or through the FCC at (888) 225-5322 or (888) CALL-FCC.

### **What does “SAR” mean?**

In 1996, the FCC, working with the FDA, the U.S. Environmental Protection Agency, and other agencies, established RF exposure safety guidelines for wireless phones in the United States. Before a wireless phone model is available for sale to the public, it must be tested by the manufacturer and certified to the FCC that it does not exceed limits established by the FCC. One of these limits is expressed as a Specific Absorption Rate, or “SAR.” SAR is a measure of the rate of absorption of RF energy in the body. Tests for SAR are conducted with the phone transmitting at its highest power level in all tested frequency bands. Since 1996, the FCC has required that the SAR of handheld wireless phones not exceed 1.6 watts per kilogram, averaged over one gram of tissue. Although the SAR is determined at the highest power level, the actual SAR value of a wireless phone while operating can be less than the reported SAR value. This is because the SAR value may vary from call to call, depending on factors such as proximity to a cell site, the proximity of the phone to the body while in use, and the use of hands-free devices.



## 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/mediacenter/factsheets/fs193/en/>

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

c/o Bundesamt für Strahlenschutz

Ingolstaedter Landstr. 1

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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.

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

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

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID [ZNFL58VL](#). 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 hearingaids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities. While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

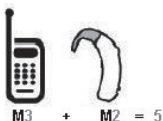
The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

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

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings. T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. T4 is the better/ higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together.

A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



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

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

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

#### **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-canceling headphones to block out background environmental noise.
- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

## TIA Safety Information

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

### Exposure to Radio Frequency Signal

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

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

ANSI C95.1 (1992) \*

NCRP Report 86 (1986)

ICNIRP (1996)

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

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

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

### Tips on Efficient Operation

For your phone to operate most efficiently:

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

### Electronic Devices

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



## Pacemakers

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

Persons with pacemakers:

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

## Hearing Aids

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

## Other Medical Devices

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

## Health Care Facilities

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

## Vehicles

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

## Posted Facilities

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

## Aircraft

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

## Blasting Areas

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

## Potentially Explosive Atmosphere

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

## For Vehicles Equipped with an Air Bag

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

## Part 15.19 statement

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

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

## Part 15.21 statement

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

## Part 15.105 statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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