

USER GUIDE

LG-K580H

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- Default apps on the device are subject to updates and support for these apps may be withdrawn without prior notice.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 Centre. 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

 WARNING	Situations that could cause injury to yourself and others, or damage to device or other property.
 NOTE	Notices or additional information.

Table of contents

Guidelines for safe and efficient use	5	Knock Code	34
Safety instructions	12	Changing the screen lock method.....	35
Features you will love	19	Smart Lock.....	35
QuickMemo+	20	Home screen	36
Using Capture+	20	Getting to Know the Home Screen.....	36
Viewing the saved memo.....	20	Returning to recently-used applications	37
Basics	21	Customizing the Home screen	38
Accessories	22	Notifications panel.....	39
Device layout.....	23	Capturing a screenshot.....	41
Turning Your Device On and Off	25	On-screen keyboard	41
Installing the SIM card and battery.....	25	Using the keypad and entering text.....	41
Charging the battery	27	Entering special characters.....	42
Optimizing battery life.....	28	Transferring data between a PC and the device	43
Inserting the memory card	29	Transferring data using USB connection.....	43
Removing the memory card	30	LG Bridge.....	44
Touch screen tips	30	Features of LG Bridge	44
Tap or touch	30	To download the LG Bridge software.....	44
Touch and hold.....	31	Apps	45
Drag.....	31	Installing or uninstalling apps.....	46
Swipe or slide.....	31	To open the Play Store app.....	46
Double-tap.....	32	To open a screen with details about an app.....	46
Pinch-to-Zoom.....	32	To uninstall applications.....	46
Google account setup	33	Calls.....	47
Creating your Google account.....	33	Making a call.....	47
Signing into your Google account.....	33	Calling your contacts.....	47
Locking and unlocking the device.....	34	Answering and rejecting a call	47
KnockON.....	34	Making a second call.....	48
		Viewing your call logs.....	48
		Change your call settings	48

Contacts	49	Stopwatch.....	62
Searching for a contact.....	49	Calculator	62
Adding a new contact.....	49	Calendar	62
Favourites contacts.....	49	Voice Recorder	63
Creating a group.....	50	Recording a sound or voice.....	63
Messaging	51	Downloads	63
Sending a message.....	51	FM Radio	63
Conversation view.....	51	LG Backup	64
Changing your messaging settings.....	51	About backing up and restoring device data.....	64
Camera	52	To backup your device data	64
Taking a photo	52	Google apps	65
Camera options on the viewfinder.....	52	Settings	67
Once you have taken a photo.....	54	Access the Settings menu	68
Recording a video.....	54	Networks Settings	68
After recording a video.....	55	Wi-Fi.....	68
Gallery	55	Wi-Fi Direct.....	69
Viewing pictures.....	55	Bluetooth.....	69
Editing photos.....	56	Mobile data.....	70
Setting wallpaper.....	56	Call.....	71
Zooming in and out	56	Printing.....	72
Playing a video.....	56	USB tethering.....	72
Deleting photos/videos.....	57	Wi-Fi hotspot.....	72
E-mail	58	Bluetooth tethering.....	73
Adding an account.....	58	Airplane mode.....	73
Working with account folders.....	58	Mobile networks.....	73
Composing and sending email.....	58	VPN.....	73
Changing an email general settings.....	59	Sound & notification settings	74
Deleting an email account.....	59	More settings.....	74
Music	59	Display settings	75
Playing a song.....	59	Home screen.....	75
Music player options.....	60	Lock screen.....	75
Clock	61		
Alarms	61		
Timer.....	61		
World clock.....	61		

Home touch buttons	76
More display settings	76
General settings.....	77
Language & keyboard.....	77
Location.....	77
Accounts & sync.....	78
Accessibility.....	78
Shortcut key	80
Security.....	80
Date & time	81
Storage.....	81
Battery & power saving	81
Apps.....	82
Default message app	82
Backup & reset.....	82
About phone.....	82
Appendix	83
Device software update.....	84
FAQ.....	85
Anti-Theft Guide	88
More information	89
Open source software notice information ..	89
Regulatory information.....	89
Trademarks.....	89

Guidelines for safe and efficient use

Important Information

This user's guide contains important information about the use and operation of this phone. Read all information carefully for optimal performance and to avoid any damage or misuse of the phone. Any changes or modifications not expressly approved in this user's guide could void your warranty for this equipment.

Before you begin

Safety Guidelines

WARNING!

- To reduce the possibility of electric shock, do not expose your product to high humidity areas, such as bathroom or swimming pool.

Keep the phone away from heat. Never store your phone in environment that may expose it to temperatures below 0 °C or above 40 °C, such as outdoor during snowstorm, or in your car in hot days. Exposure to cold or heat will result in malfunction, damage or permanent failure. Be careful when using your phone near other electronic devices. The RF emissions from mobile phones may affect nearby electronic equipment that not adequately shielded. You should consult manufacturers of any personal medical devices, as in the case of pacemakers and hearing aides, to determine whether they are susceptible to interference from cell phones. Turn off your phone in medical facilities or at gas stations. Never place your phone in microwaves, as it will cause the battery to explode.

Important!

- Before using your phone, please read the SAFETY INFORMATION OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA).

Safety Information

Read these simple guidelines. Breaking the rules may be illegal or dangerous.

More detailed information is provided in this user's guide.

- Never use an unapproved battery that could cause damages to the phone or the battery itself, or even explode.
- Never place your phone in a microwave oven, as this will result in an explosion of the battery.
- Do not dispose of your battery in fire or with hazardous or flammable materials.
- Make sure the battery does not come into contact with sharp-edged items, such as animal teeth or claws. This could cause a fire.
- Store the battery in a place out of the reach of children.
- Be careful so that children do not swallow any parts of the phone, such as rubber plugs (earpiece, parts that connect to the phone, etc.). This could cause asphyxiation or suffocation.
- Disconnect the plug and charger from the outlet when the phone shows that the battery has been fully charged, because it may cause electric shock or fire hazard.
- When in the car, do not leave your phone, or install a hands-free kit, near the airbag. If wireless equipment is improperly installed, you can be seriously injured if the airbag is deployed.
- Do not use mobile phone while driving.
- Do not use the phone in areas where its usage is prohibited. (For example: in airplanes).
- Do not expose the battery charger or adapter to direct sunlight, or use it in places with high humidity, such as bathroom.
- Never store your phone in temperatures lower than -20°C or higher than 50°C.
- Do not use harsh chemicals (such as alcohol, benzene, solvents, etc.) or detergents to clean the phone. This could cause fire.
- Do not drop the phone, strike it, or shake it hard.
Such actions may harm the phone's internal circuit boards.

- Do not use your phone in high explosive areas, as this may generate sparks.
- Do not damage the power cord by bending, twisting, pulling, or heating it. Do not use the plug if it is loose as it may cause fire or electric shock.
- Do not handle the phone with wet hands while it is charging. This can cause electric shock or seriously damage your phone.
- Do not disassemble the phone.
- Do not make or answer calls while charging the phone, which can cause a short circuit, electric shock, or fire.
- Use only batteries and chargers provided by LG. The warranty does not apply to products provided by other providers.
- Only authorized personnel should service the phone and its accessories.

Installation or service may result in accidents and consequently invalidate the warranty.

- Do not hold or let the antenna come in contact with your body during a call.
- Emergency calls can be made only within a service area. To make an emergency call, make sure you are within a service area and the phone is on.
- Use your accessories, such as headphones or headsets, with caution, ensuring that the cables are plugged properly and that they do not touch the antenna unnecessarily.
- Do not use the product in places where it may be exposed to humidity or steam. (bathroom, shower, sauna, etc.) this exposition may cause damage for your device and may be not covered by the warranty.
- Damages caused by misuse, including but not limited to intentionally bending or continually exerting force on the product, may lead to permanent damage to the display and/or other parts and functions of the phone. We therefore recommend that you do not use this product inside the back pocket and sit down on it or inside the jeans pocket. This bending may cause damage for your device and may be not covered by the warranty.

Information about the RF exposure from FCC

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

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 not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Body-worn Operation

This device was tested for typical bodyworn operations with the back of the phone kept 0.39 inches (1cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1cm) must be maintained between the user's body and the back of the phone.

Any beltclips, holsters, and similar accessories containing metallic components may not be used. Body-worn accessories that cannot maintain 0.39 inches (1cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

Part 15.105 Statement

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

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

Battery Disposal

- Please dispose of your battery properly, or bring it to your wireless provider for recycling.
- Do not dispose of your battery in fire or with hazardous or flammable materials.

Adapter Precautions (Charger)

- Using the wrong battery charger could damage your phone and void your warranty.
- The adapter or battery charger is only designed for indoor use.
- Do not expose the battery charger or adapter to direct sunlight, or use it in places with high humidity, such as the bathroom.

Cautions for Battery

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.

- For those host devices that utilize a USB port as a charging source, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.
- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.

Avoid damage to your ear

- Damage to your hear can occur due to constant exposure to excessive high sound. We, therefore, recommend that you do not turn on or off the phone near your ear. We also recommend you be reasonable with the music and volume level.
- If you listen to music, please ensure that the volume level is adequate, so that you are aware of your surroundings. This is particularly important when attempting to cross a street.

Safety instructions

TIA's Safety Information

This includes complete security information on wireless phones from TIA (Telecommunications Industry Association).

It's required, for CTIA Certification, the inclusion in the user manual of text covering pacemakers, hearing aids and other medical devices. It's encouraged the use of the remaining TIA language when relevant.

Exposure to Radio Frequency Signal

Your wireless handheld portable telephone is a lowpower radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

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

ANSI C95.1 (1992) *

NCRP Report 86 (1986)

ICNIRP (1996)

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

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

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

Driving

Check the laws and regulations related to the use of wireless phones in the areas where you drive. Always obey these regulations. Also, if using your phone while driving, make sure to:

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

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.

Pacemaker

The Medical Industry Manufacturers Association recommends a minimum distance of fifteen (15) centimeters, or six (6) inches, between a handheld wireless phone and a pacemaker, in order to avoid potential interference between them.

These advices are consistent with independent researches, and with recommendations based on wireless technology research.

People with pacemakers should:

- ALWAYS keep the phone at least fifteen centimeters (six inches) from their pacemaker, whenever the phone is turned on;
- Not carry the phone in a shirt pocket;
- Use the ear opposite to the pacemaker, to minimize the potential interference;
- If you have any reason to suspect that interference is taking place, switch off your phone immediately.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, we recommend that you contact your service provider.

Other Medical Devices

If you use any other personal medical devices, consult your device manufacturer to determine if they are adequately shielded from external RF energy. Your doctor can help you obtain this information.

Health Care Facilities

Turn off your phone in health care facilities, whenever there are signs asking 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 devices in motor vehicles.

Check with the manufacturer, or its representative, regarding your vehicle. You should also consult the manufacturer about any equipment that has been added to your vehicle.

Facilities with signs

Turn off the phone in any facility where warning signs request you to do so.

Airplanes

FCC regulations prohibit the use of phones while in the air. Turn off your phone before boarding an airplane.

Blasting Areas

To avoid interfering with blasting operations, turn your phone off when in a 'blasting area' or in areas with signs that read: 'Turn off two-way radios'. Obey all signs and instructions.

Potentially Explosive Atmosphere

Turn off the phone when in an area with a potentially explosive atmosphere, and obey all signs and instructions.

Sparks in such areas could cause an explosion or fire that could result in personal injury or death.

Areas with a potentially explosive atmosphere are often clearly marked, but not always. Among the potentially dangerous areas are:

Fueling areas (such as gas stations), areas below deck on boats, facilities where chemical products are transferred or stored, vehicles using liquefied petroleum gas (as propane or butane), areas where the air contains chemicals or particles (such as grain, dust or metal powders), and any other areas where you would normally be advised to turn off your vehicle engine.

For vehicles equipped with air bags

Air bags inflate with strong force. Do not place objects in the area over the air bag or in its deployment area, including wireless equipment, either installed or portable.

Serious injuries could occur if wireless equipment is improperly installed into the car when the air bag inflates.

Safety Information

Read and observe the following information for the safe and proper use of your phone, and to prevent any damage.

Also, keep the user's guide in an accessible place at all times after reading it.

Charger, Adapter and Battery Security

- The charger and adapter are designed only for indoor use.
- Dispose of your battery properly, or bring it to your wireless provider for recycling.
- The battery doesn't need to be fully discharged before recharging.
- Only use LG approved chargers that are specifically made for your phone model, since they are designed to maximize the battery life.
- Do not disassemble or short-circuit it.
- Keep the metal contacts on the battery clean.
- Replace the battery when it no longer provides acceptable performance. The battery can be recharged several hundred times before replacement.
- Charge the battery after long periods without use to maximize its life.

- The battery life will vary depending on usage patterns and environmental conditions.
- Intensive use of backlighting, browser, and packet data connectivity affect battery life and talk/standby times.
- The role of self-protection interrupts the phone when its operation is in an abnormal state. In this case, remove the battery from the phone, reinstall it, and turn on the phone.

Explosion, Shock and Fire Danger

- Do not place the phone in a place exposed to excessive dust, and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord before cleaning the phone, and clean the power plug whenever it is dirty.
- When using the power plug, make sure it is firmly connected. Otherwise, it can overheat or start a fire.
- Placing the phone in a pocket or bag without covering the receptacle (power plug pin), metallic articles (such as a coin, clip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- Do not short-circuit the battery. Metal items, such as coins, paper clips, or pens, in your pocket or bag may cause a shortcircuit between the + and - terminals of the battery (metal strips on the battery). The short-circuit of the terminals may damage the battery and cause an explosion.

General Notice

- Using a damaged battery, or inserting it into the mouth can cause serious injuries.
- Do not place the phone in proximity to items containing magnetic components, such as credit cards, calling cards, bank books, or subway tickets. The phone magnetism may damage the data stored in the magnetic strip.
- Talking on the phone for a long period of time may reduce call quality, because of the heat generated during use.

- When the phone has not been in use for a long time, store it in a safe place, with the power cord unplugged.
- Using the phone close to a receiving equipment (such as TV or radio) may cause interference.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight singe. Contact an LG Authorized Service Facility to replace the damaged antenna.
- Do not immerse your phone in water. If this happens, immediately turn it off and remove the battery. If your phone does not work, take it to an LG Authorized Service Facility.
- The power supply contains elements that could be harmful to your health, if components are handled directly. If this happens, we recommend immediate hand-washing.
- Do not paint the phone.
- Data stored in your phone might be deleted due to careless use, hardware repair or software upgrade. Please backup your important phone numbers (ringtones, text or voice messages, images, and videos might also get deleted). The manufacturer is not liable for damages due to loss of data.
- When using the phone in public places, you may set the ringer on vibrate to avoid disturbing others.
- Do not switch the phone on/off while it is in your ear.
- Repairs under warranty, at LG's discretion, may include replacement parts or boards that are either new or reconditioned, provided that they have functionality equal to that of the parts being replaced.

Ambient temperatures

- Use your phone in temperatures between 0 °C and 40 °C, if possible. Exposing your phone to extremely low or high temperatures may result in damage, malfunction, or even explosion.

Features you will love

QuickMemo+

The QuickMemo+ feature allows you to create memos.

Using Capture+

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

- 1 Touch and slide the status bar downward and tap .
If you can not see , tap  > checkmark **Capture+** to enable.
- 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 colour.
	Tap to use the eraser to erase the pen marks on the memo.
	Tap to crop the image of memo.
	Tap to select the share or paper style.
	Tap to hide or display the toolbar.

NOTE

- Please use a fingertip while using the QuickMemo+ feature. Do not use your fingernail.

- 3 Tap  > **Done** to save the current memo to  or .

Viewing the saved memo

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

Basics

Accessories

These accessories are available for use with the your Device.

- Travel Adaptor
- Quick Start Guide
- Stereo Headset
- 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

Earpiece ———— Front Camera Lens

Headset Jack ———— Charger/USB Port

Rear Camera Lens ———— Flash

Power/Lock Key ———— Volume Keys

Speaker ————

Power/Lock Key	· Turn your device on/off by pressing and holding this key. · Short press to turn on/off the screen.
Volume Keys	While screen is off: · Press either Volume key twice to launch the Camera. On the Home screen: · Control ringer volume. During a call: · Control your earpiece volume when playing audio/video. · Control volume continuously.



WARNING

- Placing a heavy object on the device or sitting on it can damage the display and touch screen functions.

Turning Your Device On and Off

Turning your device on

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

Turning your device off

- 1 Press and hold the **Power/Lock Key** until the device options menu appears.
- 2 Tap **Power off** > **OK** to confirm that you want to turn off the device.

Installing the SIM card and battery

Insert the SIM card provided by the device service provider, and the included battery.



WARNING

- Do not insert a memory card into the SIM card slot. If a memory card happens to be lodged in the SIM card slot, take the device to a LG Service Centre to remove the memory card.



NOTE

- Only the microSIM cards work with the device.
- 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 Slide the SIM card into the SIM card slot as shown in the figure. Make sure the gold contact area on the card is facing downward.

**WARNING**

- Do not insert a memory card into the SIM card slot. If a memory card happens to be lodged in the SIM card slot, take the device to a LG Service Centre to remove the memory card.

**NOTE**

- Only the microSIM cards work with the device.

- 3 Insert the battery.

- 4 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 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. If you use unapproved chargers, batteries or cables, it may cause battery charging delay. Or this can 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.

Optimizing battery life

Extend your battery's power by turning off features that you do not need to run constantly in the background. You can monitor how applications and system resources consume battery power.

Extending your device battery life:

- Turn off radio communications when you are not using. If you are not using Wi-Fi, Bluetooth® or GPS, turn them off.
- Reduce screen brightness and set a shorter screen timeout.
- Turn off automatic syncing for Gmail, Calendar, Contacts and other applications.
- Some applications you download may consume battery power.
- While using downloaded applications, check the battery charge level.

Inserting the memory card

Your device supports up to a 32GB 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. Using an incompatible card may damage the device or the memory card, or corrupt the data stored in it.



NOTE

- Frequent writing and erasing of data shortens the lifespan of memory cards.

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

- 3 Replace the back cover.

Removing the memory card

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

Tap  >  >  > **General** tab > **Storage** > **Unmount SD card**.

WARNING

- Do not remove the memory card while the device is transferring or accessing information. Doing so can cause data to be lost or corrupted or damage to the memory card or device. It is not responsible for losses that result from the misuse of damaged memory cards, including the loss of data.

Touch screen tips

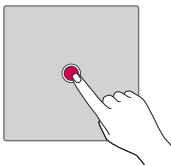
Here are some tips on how to navigate on your device.

NOTE

- Do not press too hard; the tap 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.

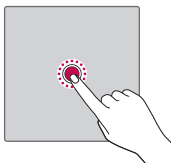
Tap or touch

A single finger tap selects items, links, shortcuts and letters on the on-screen keyboard.



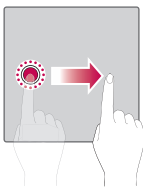
Touch and hold

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



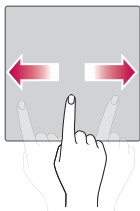
Drag

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.



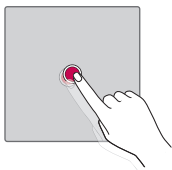
Swipe or slide

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).



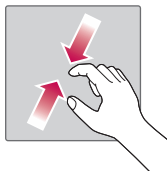
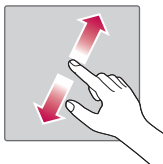
Double-tap

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  >  >  > **General tab** > **Accounts & sync.**
- 2 Tap **ADD ACCOUNT** > **Google** > **Or create a new account.**
- 3 Enter your first and last name, then tap **NEXT.**
- 4 Enter your device number for security tap **NEXT.**
- 5 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  >  >  > **General tab** > **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.
- 6 Once you have set up your Google account, your device will automatically synchronise with your Google account on the web (if a data connection is available).

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.

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 centre 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

- Tap on the centre area of the screen. If you tap on the bottom or the top area, the recognition rate may decrease.

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 5 times, it will compulsorily take you to your Google account log in/backup PIN.
- Use the fingertip instead of finger nail to tap the screen for turning it on or off.

Setting up the Knock Code feature

- 1 Tap  >  >  > **Display** tab > **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 3 to 8 taps.

Unlocking the screen using the Knock Code

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

Changing the screen lock method

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

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

NOTE

- Create a Google account before setting an unlock pattern and 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, or when it recognises your face.

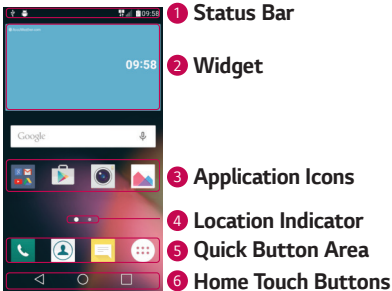
Setting up Smart Lock feature

- 1 Tap  >  >  > **Display** tab > **Lock screen** > **Smart Lock**.
- 2 Before you add any trusted devices, trusted places, or trusted face, 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 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 Apps drawer or on the Home screen. Unlike a shortcut, a 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

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

Viewing 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 customise your Home screen by adding apps and widgets and changing wallpapers.

Adding items on your Home screen

- 1 Touch and hold the empty part of the Home screen.
- 2 In the Add Mode menu, select the item you want to add. You then see this added item on the Home screen.
- 3 Drag it to the desired location and lift your finger.



NOTE

- To add an application icon to the Home screen from the Apps screen, touch and hold the application you want to add.

Removing an item from the Home screen

While on the Home screen, touch and hold the icon you want to remove > drag it to .

Adding an app to the Quick Button Area

From the Apps screen or on the Home screen, touch and hold an application icon and drag it to the Quick Button Area. Then release it in the desired location.

Removing an app from the Quick Button Area

Touch and hold the desired Quick Button, drag it to .



NOTE

- The **Apps Button**  cannot be removed.

Customizing app icons on the Home screen

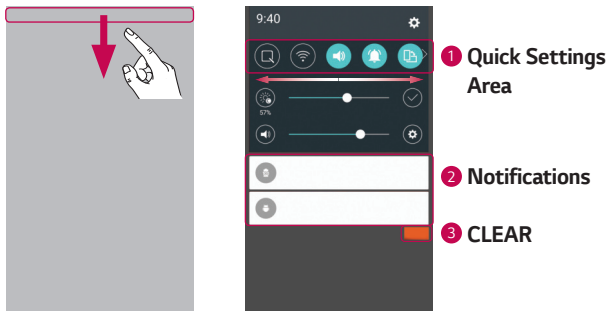
- 1 Touch and hold an application icon until it unlocks from its current position, then release it. The editing icon  appears in the upper-right corner of the application.
- 2 Tap the application icon again and select the desired icon design and size.
- 3 Tap **OK** to save the change.

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 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 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.

Notification icons

Status icons



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

Icon	Description
	A song is currently playing
	No interruptions, not even alarms
	Vibrate mode is on
	Battery fully charged
	Battery is charging
	The device is connected to a PC via a USB cable
	Downloading data
	Uploading data
	GPS is on
	Data is synchronizing
	Choose input method
	Wi-Fi hotspot is active

NOTE

- The icon's location in the status bar may differ according to the function or service.
- The available options may vary depending on the region or service provider.

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  >  >  > **Screenshots** folder.

On-screen keyboard

You can enter text 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 capitalise the next letter you type. Double-tap for all caps.
	Tap to go to the keyboard settings. Touch and hold to change entering text method.
	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 **Media device (MTP)**.
- 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 **Media device (MTP)**.

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

LG Bridge

LG Bridge is an application that helps you conveniently manage images, music, videos, documents, etc. saved on a LG device on your PC. Also, you can back up your files such as contacts and images to your PC or update software of a device.

NOTE

- You can see detailed instructions on how to use LG Bridge in Help menu after installing and opening the program.
- Supported features may vary depending on the device.
- The LG unified USB driver is a program required to connect an LG device to a PC. It is automatically installed when installing LG Bridge.

Features of LG Bridge

- Manage contents from your device on PC via Wi-Fi or data.
- Back up and restore the data of your device via USB.
- Update software of a device on your PC via USB.

To download the LG Bridge software

- 1 Go to www.lg.com.
- 2 Tap the Search button and enter the model name to search for the model.
- 3 Select the model information and click **GO**.
- 4 Scroll down, select the **PC SYNC** tab > **Windows** or **Mac OS** > **DOWNLOAD** to download LG Bridge.

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  >  >  > **General** tab > **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 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 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 .
- 3 Both calls are displayed on the call screen. Your initial call is locked and put on hold.
- 4 Tap the displayed number to toggle between calls. Or tap  to start a conference call.
- 5 To end all calls, tap .

NOTE

- You are charged for each call you make.

Viewing your call logs

- 1 Tap  >  > **Call logs** tab.
- 2 View a list of all dialed, received and missed calls.

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 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 synchronise 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** > **New contact**.
- 4 If you want to add a picture to the new contact, tap the image icon. Choose **Take photo** or **Select from Gallery**.
- 5 Enter the desired information for the contact.
- 6 Tap **SAVE**.

Favourites contacts

You can classify frequently called contacts as favourites.

Adding a contact to your favourites

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

Removing a contact from your favourites list

- 1 Tap  >  > **Favourites** tab.
- 2 Choose a contact to view its details.
- 3 Tap the yellow star at the top right of the screen. The star turns a dark colour and the contact is removed from your favourites.

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

- Tap  >  >  > **Settings**.

Camera

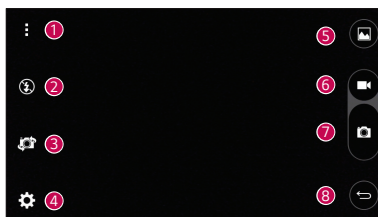
You can use the camera or camcorder to take and share pictures and videos.

- Tap  >  > .

Taking a photo

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

Camera options on the viewfinder



1		Tap to hide/display the camera options on the viewfinder.
2		Allows you to manage the camera's flash.
3		Tap to swap between the rear camera lens and the front camera lens.
4		Tap this icon 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		

8	↩	Tap to exit the camera.
---	---	-------------------------

NOTE

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

Using the advanced settings

In the camera viewfinder, tap  to show the advanced options. Tap each icon to adjust the following camera settings.

	Set the ratio of your picture and the quality of video.
	Allows you to take pictures with voice commands. When on, you just say " Cheese ", " Smile ", " LG ", etc. to take a picture.
	Set your camera's timer. This is ideal if you want to be a part of the picture or video.
	Allows you to take better pictures and record better videos by displaying a grid line for help with alignment.
	Set the storage location for your pictures and videos. Choose from IN (internal memory) and SD (memory card). This menu appears only when the SD card is inserted.
	Allows you to learn how a function works. This icon will provide you with a help guide.

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 open the available sharing options.
	Tap to delete the photo.
	Tap to access additional options.
	Tap to add the photo to your favourites.

Recording a video

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

NOTE

- Tap  to take pictures while recording video.

- 5 Tap  to pause recording video. You can resume recording again 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 open the available sharing options (such as Messaging or Bluetooth) to share.
	Tap to delete the video.
	Tap to access additional options.
	Tap to add the video to your favourites

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.

Viewing pictures

The Gallery displays your pictures in folders. When an application, such as E-mail, saves a picture, the download folder is automatically created to contain the picture. Likewise, capturing a screenshot automatically creates the Screenshots folder.

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  > **Set image as** to set the image as wallpaper or assign it to a contact.

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.

Zooming in and out

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

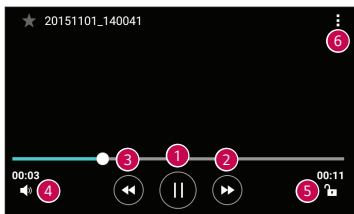
- Double-tap anywhere to zoom in.
- Spread two fingers apart on any place in the picture zoom in. Pinch in or double-tap the image to zoom out.

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 incrementally. Tap to fast-forward 10 seconds.
3		Touch and hold to rewind incrementally. Tap to rewind 10 seconds.
4		Tap to adjust the video volume.
5		Tap to lock/unlock the screen.
6		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

E-mail

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** app.

- Tap  > **Settings** > .

Working with account folders

- Tap  > **Show all folders**.

Each account has Inbox, VIP, Sent, Drafts and Show all folders. 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 to other contacts/email addresses.
- 4 Tap the text field and enter your message.
- 5 Longpress the text field to edit selected words (Bold/Italic/Underline/Color).
- 6 Tap  to attach the file you want to send with your message.
- 7 Tap  to send the message.

Changing an email general settings

- Tap  > **Settings** > **General settings**.

Deleting an email account

- Tap  > **Settings** >  > **Remove account** > Select the account to delete > **REMOVE** > **YES**.

Music

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

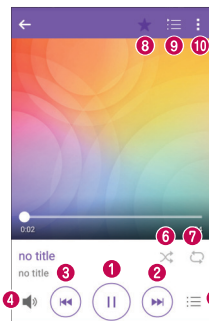
NOTE

- 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 Tap the **Songs** tab.
- 3 Select the song you want to play.
- 4 The following options are available.

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 open 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 favourites.
9		Tap to open the current playlist.
10		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 Alarms tab allows you to set alarms.

- 1 Tap **Alarms** 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.

Timer

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

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

World clock

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

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

Stopwatch

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

- 1 Tap **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 .

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 listen to the recording.



- 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  >  > .

FM Radio

Your device has a built-in FM Radio so you can tune in to your favourite stations and listen on the go.

- Tap  >  > .



- You must plug in your earphones in order to use them as an antenna.

LG Backup

About backing up and restoring device data

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

This LG Backup application is supported LG device, other software or operating system versions. As a result, when you buy the new LG device, you can backup the current device data to your new device.

If you have the LG Backup application preloaded on your device, you can backup and restore most of your data, including downloaded and pre-installed applications, bookmarks, calendar entries, contacts, home screen settings, and system settings.

WARNING

- To protect against an unexpected power off during backup or restore operations, due to insufficient battery power, you should always keep your battery fully charged.

NOTE

- All files that are stored on your device are deleted before the backup file is restored. Make sure to copy the backup file to another location.
- Please note that your device data will be overwritten with the content of your backup.

To backup your device data

1 Tap  >  > .

2 Select the desired options.

- **Copy data between devices** – Copy data from old device to new device.
- **Back up & restore** – Back up data or restore from backup.

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 videos stored on your device and download various content to watch 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+.

Google Settings

Configure settings for some features provided by Google.

Voice Search

Search quickly for items by saying a keyword or phrase.

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  >  > .

Viewing settings

Tap  to switch the view mode.

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

NOTE

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

Networks Settings

Wi-Fi

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

On the **Settings** screen, tap **Networks** tab > **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.
- 3 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 data, which may incur data charges.

Wi-Fi Direct

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

- Tap  > **Advanced Wi-Fi** > **Wi-Fi Direct**.

NOTE

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

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 **Networks** tab > **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 recognise 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 **Networks** tab > **Bluetooth**.
- 2 Tap  to turn Bluetooth on.
- 3 You will receive a request to accept a pairing attempt from the sending device. Be sure to select **ACCEPT**.

Mobile data

Displays the data usage and device data usage limit.

- Tap  to toggle your device data connection On or Off. This allows you to manage your device data usage. You can use a Wi-Fi network connection for data instead.

Call

Allows you to configure various call settings.

On the **Settings** screen, tap **Networks** tab > **Call**.

- **Vicemail** – Allows you to select your carrier's voicemail service.
- **Fixed dialing numbers** – Allows you to manage and compile a list of numbers that can be called from your device. You need your PIN2, which is available from your operator. If activated, only numbers in the fixed dial list can be called from your device.
- **Incoming voice call pop-up** – Displays a pop-up for an incoming call when an app is in use.
- **Call reject** – Allows you to set the call decline function.
- **Decline with message** – When you want to decline a call, you can send a quick message using this function. This is useful if you need to decline a call during a meeting.
- **Call forwarding** – Allows you to choose when to forward calls.
- **Auto answer** – Set the time before a connected hands-free device automatically answers an incoming call.
- **Connection vibration** – Vibrates your device when the other party answers the call.
- **Save unknown numbers** – Allows you to add unknown numbers to contacts after a call.
- **Power key ends call** – Allows you to use the Power key to end calls.
- **Silence incoming calls** – Enable to allow you to flip the device to silence incoming calls.
- **Call barring** – Locks incoming, outgoing or international calls.
- **Call duration** – Allows you to view the call duration for various types of calls.
- **Additional settings** – Allows you to change the following settings such as **Caller ID** or **Call waiting**, etc.

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 **Networks** tab > **Share & connect** > **Printing**.

Printing via wireless printer

- 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.

USB tethering

Allows you to share the internet connection with your computer via a USB cable.

- 1 Connect your device to your PC with a USB cable.
- 2 On the **Settings** screen, tap **Networks** tab > **Tethering**.
- 3 Tap  to turn USB tethering on.

Wi-Fi hotspot

You can also use your device to provide a device broadband connection. Create a hotspot and share your connection.

On the **Settings** screen, tap **Networks** tab > **Tethering**

- 1 Tap  to turn Wi-Fi hotspot on.
- 2 Tap Set up Wi-Fi hotspot to change the SSID, security type, password, and other hotspot options.

Bluetooth tethering

Allows you to connect to other devices via Bluetooth.

- On the **Settings** screen, tap **Networks** tab > **Tethering**.
- Tap  to turn Bluetooth tethering on to share your connection via Bluetooth tethering.

Airplane mode

Allows you to use many of your device 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 **Networks** tab > **More** > **Airplane mode**.

Mobile networks

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

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

Sound & notification settings

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

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

- **Sound profile** – Allows you to set your device sound profile.
- **Volume** – Adjust the device volume settings to suit your needs and environment.
- **Ringtone** – Allows you to set the ringtones for calls. You can also add and delete ringtones.
- **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.
- **Interruptions** – 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.

More settings

Allows you to set other sound & notification settings.

On the **Settings** screen, tap **Sound & notification** tab > **More**.

- **Notification sound** – Allows you to set the notification sound. You can also add and delete notification sounds.
- **Sound effects** – This menu lets you select whether you hear tones when tapping numbers on the dial pad, selecting on-screen options, and more.
- **Message/call voice notifications** – Allows your device to read out incoming calls and message events automatically.

Display settings

Home screen

Allows you to set your home screen settings.

On the **Settings** screen, tap **Display** tab > **Home screen**.

- **Select Home** – Select the desired Home theme.
- **Theme** – Sets the screen theme for your device. You can download new themes from LG SmartWorld.
- **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.
- **Allow Home screen looping** – Enable to allow continuous Home screen scrolling (loop back to first screen after last screen).
- **Help** – Displays help information for the Home screen.

Lock screen

Allows you to set your lock screen settings.

On the **Settings** screen, tap **Display** tab > **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 button instantly locks** – Checkmark to instantly lock the screen when the Power/Lock Key is pressed. This setting overrides the lock timer setting.

Home touch buttons

Set the Home touch buttons displayed at the bottom of all screens. Set which buttons are displayed, their position on the bar and what they look like.

On the **Settings** screen, tap **Display** tab > **Home touch buttons**.

More display settings

Allows you to set other display settings.

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

- **Font type** – Select the desired font type.
- **Font size** – Select the desired font size.
- **Brightness** – Adjust the screen brightness by using the slider.
- **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.
- **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.

General settings

Language & keyboard

Allows you to change the text input settings.

Select the language for the text on your device and for configuring the on-screen keyboard, including words that you've added to its dictionary.

On the **Settings** screen, tap **General** tab > **Language & keyboard**.

- **Language** – Choose a language to use on your device.
- **Current keyboard** – Allows you to select the current keyboard type.
- **LG Keyboard** – Change the LG Keyboard settings.
- **Google voice typing** – Enable to select Google voice typing to enter data. Tap the Settings icon to change the Google voice settings.
- **Voice Search** – Tap to configure the Voice Search 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 primary button on right.

Location

Turn on location service, your device determines your approximate location using Wi-Fi and device 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 **General** tab > **Location**.

- **Mode** – Sets the how your current location information is determined.
- **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.

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.

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.

On the **Settings** screen, tap **General** tab > **Accounts & sync**.

- **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.

Accessibility

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

On the **Settings** screen, tap **General** tab > **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.
 - **Screen shade** – Enable to set the screen to a darker contrast.
 - **Font size** – Sets the font size.
 - **Touch zoom** – Allows you to zoom in and out by triple-tapping the screen.
 - **Screen colour inversion** – Enable to invert the colours of the screen and content.
 - **Screen colour filter** – Allows you to change the colours of screen and content.

- **Power key ends call** – 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 customise 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 feedback time** – Sets the touch feedback time.
 - **Touch assistant** – Show a touch board with easy access to common actions.
 - **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.

Shortcut key

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

On the **Settings** screen, tap **General** tab > **Shortcut key**.

- Press and hold both **Volume keys** when screen on to launch Capture+.
- Press either **Volume key** twice when screen locked or off to launch the Camera app.

Security

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

On the **Settings** screen, tap **General** tab > **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 storage** – 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.
- **Storage type** – Displays the current storage type.
- **Certificate management** – Allows you to manage your security certificates.
- **Trust agents** – Select apps to use without unlocking screen.
- **Screen pin** – You can enable your device to only show a certain app's screen using screen pin.

- **App usage access** – Allows you to view usage information of apps on your device.

Date & time

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

On the **Settings** screen, tap **General** tab > **Date & time**.

Storage

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

On the **Settings** screen, tap **General** tab > **Storage**.

INTERNAL STORAGE

- **Total space** – Displays the total amount of space and the available space in your device internal memory in text and with a color-coded bar graph (unused space is gray). Corresponding apps and the amount of space they use is listed under each device user.

SD CARD

- **Total space** – Displays the total amount of space and the remaining available space in your memory card.
- **Mount/Unmount SD card** – Allows you to mount or unmount your SD card.
- **Erase SD card** – Allows you to erase all of the data on your SD card.

Battery & power saving

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

On the **Settings** screen, tap **General** tab > **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** – Checkmark to display the battery level percentage on the status bar next to the Battery icon.
- **Battery saver** – Tap the Battery Saver switch to toggle it on or off. Sets the battery charge percent level that automatically turns on Battery Saver.

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 **General** tab > **Apps**.

Default message app

This menu allows you to choose what messaging app to use as your default messaging app.

On the **Settings** screen, tap **General** tab > **Default message app**.

Backup & reset

Change the settings for managing your settings and data.

On the **Settings** screen, tap **General** tab > **Backup & reset**.

- **LG Backup** – Backs up all information on the device and restores it in the event of data loss or replacement. If you need more information, please refer to **LG Backup** section in **Apps**.
- **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.
- **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.

About phone

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

On the **Settings** screen, tap **General** tab > **About phone**.

Appendix

Device software update

LG device software update from the Internet

For more information about using this function, please visit <http://www.lg.com/common/index.jsp> → select your country and language.

This feature allows you to conveniently update the firmware on your device to a newer version from the Internet without needing to visit a service centre. This feature will only be available if and when LG makes a newer firmware version available for your device.

Because the device firmware update requires the user's full attention for the duration of the update process, please make sure you check all instructions and notes that appear at each step before proceeding. Please note that removing the USB data cable during the upgrade may seriously damage your device.



NOTE

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

LG device software update via Over-the-Air (OTA)

This feature allows you to conveniently update your device 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 device:

Settings > General tab > About phone > Update Center > Software Update > Check now for update.

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 software. Therefore, LG recommends that you backup your personal data before updating your device 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 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.	1 Tap  >  > . 2 Tap General tab > Apps. 3 Tap the app > Uninstall.
Calls not available	Dialing error	New network not authorised.
	New SIM card inserted.	Check for new restrictions.
	Pre-paid charge limit reached.	Contact service provider or reset limit with PIN2.
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.

Message	Possible causes	Possible corrective measures
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.
Number not allowed.	The Fixed dialling number function is on.	Check the Settings menu and turn the function off.
Impossible to receive/ send SMS & photos	Memory full	Delete some data, such as applications or messages from your device to make more memory available.
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.

Message	Possible causes	Possible corrective measures
Hangs up or freezes	Intermittent software problem	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. OR Try to perform a software update through the website.

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. This offer is valid for three (3) years from the date on which you purchased the product.

Regulatory information

For regulatory details, go to **Settings > General > Regulatory and safety** on your phone.

Trademarks

- Copyright ©2016 LG Electronics, Inc. All rights reserved. LG and the LG logo are registered trademarks of LG Group and its related entities. All other trademarks are the property of their respective owners.
- Google™, Google Maps™, Gmail™, YouTube™, Hangouts™ and Play Store™ are trademarks of Google, Inc.
- Bluetooth® is a registered trademark of Bluetooth SIG, Inc. worldwide.
- 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.

