



LG THRIVE™

User Manual



at&t

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Actual color of the phone may vary.

Your phone is designed to make it easy for you to access a wide variety of content. For your protection, we want you to be aware that some applications that you enable may involve the location of your phone being shared. For applications available through AT&T, we offer privacy controls that let you decide how an application may use the location of your phone and other phones on your account. However, the AT&T privacy tools do not apply to applications available outside of AT&T. Please review the terms and conditions and the associated privacy policy for each location-based service to learn how location information will be used and protected. In addition, your AT&T phone may be used to access the Internet and to download, and/or purchase goods, applications, and services from AT&T or elsewhere from third parties. AT&T provides tools for you to control access to the Internet and certain Internet content. These controls may not be available for certain devices which bypass AT&T controls.

Bluetooth QD ID B016768

LIMITED WARRANTY STATEMENT

1. WHAT THIS WARRANTY COVERS :

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

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

2. WHAT THIS WARRANTY DOES NOT COVER :

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

- 9. Products operated outside published maximum ratings.
- 10. Products used or obtained in a rental program.
- 11. Consumables (such as fuses).

3. WHAT LG WILL DO:

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

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

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5. HOW TO GET WARRANTY SERVICE :

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

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

Or visit www.lg.com.

Correspondence may also be mailed to:

LG Electronics MobileComm U.S.A., Inc.

201 James Record Road Huntsville, AL 35824

DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.

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



LG THRIVE™

User Manual

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Important notice

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

1. Phone Memory

You need to check your phone memory and delete some data, such as applications or messages, to make more memory available.

Managing Applications

- 1 From the Home screen, press the **Menu Key** and touch **Settings > Applications > Manage applications**.
- 2 When the list of applications appears, scroll and touch the application you want to uninstall.
- 3 Touch **Uninstall** and then touch **OK** to confirm that you want to uninstall the desired application.

2. Optimizing Battery Life

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

To extend the life of your battery

- Turn off radio communications that you aren't using, such as Wi-Fi, Bluetooth, or GPS.
Wi-Fi and GPS will be set to On the first time you use your newly purchased phone.
- Lower screen brightness and set a shorter screen timeout.
- Turn off automatic syncing for Gmail™, Calendar, Contacts, and other applications.
- Some applications you have downloaded may cause your battery power to be reduced.
- While using downloaded applications, check the battery charge level.

Important notice

To view the battery charge level

- 1 From the Home screen, press the **Menu Key** and touch **Settings > About phone > Status**.
- 2 The battery status (charging or not charging) and level are displayed on the top menu of the screen.

To monitor and control what uses the battery

- 1 From the Home screen, press the **Menu Key** and touch **Settings > About phone > Battery use**.
- 2 The top of the screen displays battery usage time. Either how long since last connected to a power source or, if connected to a power source, how long you were last running on battery power. The screen also lists applications or services using battery power from greatest amount to least.

3. Installing an Open Source Operating System

Installing an open source operating system on your phone and not using the operating system provided by the manufacturer can cause your phone to malfunction.

4. Using the Unlock Pattern, PIN, or Password

Set an unlock Pattern, PIN, or Password to secure your phone. To set the screen lock, follow the process below.

Press the **Menu Key**, touch **Settings > Location & security > Set up screen lock** and select between **Pattern**, **PIN** or **Password**.

⚠ Warning

Take precautions when using an Unlock Pattern, PIN, or Password. It is very important that you remember the screen unlock information you set. You are allowed 5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

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

If you logged into a Google account on the phone and failed to use the correct pattern 5 times, touch **Forgot Pattern?** You will be required to sign in with your Google

account and prompted to create a new unlock pattern.

If you haven't created a Google account on the phone or you forgot your PIN or Password, you need to perform a hard reset.

⚠ Caution

If you perform a hard reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a hard reset.

- 1 Turn the power off.
- 2 Press and hold the following keys at the same time for 10 seconds: Power/Lock Key + Home Key + Up Volume Key.
- 3 When the power turns on, release the keys.

5. Using Safe Mode and Hard Reset

Using Safe mode

* To recover your phone when malfunctioning.

- 1 Turn off your phone and reboot. When the LG Logo is displayed on the screen, press and hold the **Menu Key**. Your main screen

will then be displayed with the words "Safe mode" in lower left corner.

- 2 From the Home screen, press the **Menu Key** and touch **Settings > Applications > Manage applications**.

- 3 Choose the application you wish to uninstall and touch **Uninstall** and **OK** to confirm.

- 4 After uninstalling the application, turn off and reboot your phone.

* Using Hard Reset (Factory Reset)

If using Safe Mode does not restore your phone to the original condition, use a **Hard Reset** to initialize your phone.

- 1 Turn the power off.
- 2 Press and hold the following keys at the same time for 10 seconds: Power/Lock Key + Home Key + Up Volume Key.
- 3 When the power turns on, release the keys.

⚠ Warning

If you perform a Hard Reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a **Hard Reset**.

6. Using a microSD Card

Pictures, Music and Video files, can only be saved to external memory. Before using the camera, you need to insert a microSD card. If you have not inserted a microSD card, you will not be able to save pictures and video taken with the phone.

⚠ Warning

Do not insert or remove the microSD card when the phone is on. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted. To remove the microSD card safely, from the Home screen, press the **Menu Key** and touch **Settings > SD card & phone storage > Unmount SD card**.

7. Connecting your phone to a computer via USB

- 1 Use the USB cable that was provided with your phone to connect the phone to a USB port on your computer. You'll receive a notification that the USB is connected.
- 2 Touch **Turn on USB storage** and **OK** to confirm that you want to transfer files

between your phone's microSD card and the computer.

When the phone is connected as USB storage, you receive a notification. Your phone's microSD card is installed as a drive on your computer. You can now copy files to and from the microSD card.

⚠ TIP

You cannot access the microSD card from your phone while connected as USB storage. So you cannot use applications that rely on the microSD card, such as Camera, Gallery and Music.

To disconnect your phone from the computer, carefully follow your computer's instructions to disconnect USB devices correctly, to avoid losing information on the card. Then follow the instructions below.

- 1 Open the Notifications panel and touch **Turn off USB storage (twice)**.
- 2 Safely disconnect the phone from your computer.

8. Unlock screen when using data connection

Your screen will go dark if untouched for a period of time when using a data connection. To turn on your LCD screen, press any key on the phone (Menu, Home, Back, Search, Power/Lock Key), except the Volume Keys.

9. Hold the phone straight up

Please hold the mobile phone straight up as a regular phone.

While making/receiving calls or sending/receiving data, try to avoid holding the lower part of the phone where the antenna is located. It may affect call quality.

10. When the screen freezes

If the phone does not respond to user input or the screen freezes:

Remove the battery, insert it again and power on the phone. If it still does not work, please contact the Customer Service Center.

11. Do not connect your phone when you power on/off your PC

Make sure to disconnect your phone from the PC when powering your PC on or off as it might result in PC errors.

Your Phone

To turn on the phone, press and hold the Power/Lock Key for 3 seconds.

To turn off the phone, press the Power/Lock Key for 3 seconds and touch Power off and OK to confirm.

Front View

Earpiece

Proximity Sensor

Home Key

- Returns to the Home screen from any screen.

Menu Key

- Displays available options for the current screen.

Power/Lock Key

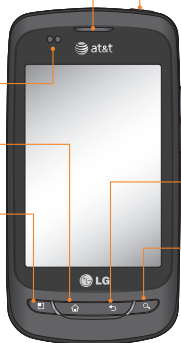
- Powers your phone on/off by pressing and holding the key.
- Turns your screen on and off and locks it.

Back Key

- Returns to the previous screen.

Search Key

- Search the web and contents in your phone.



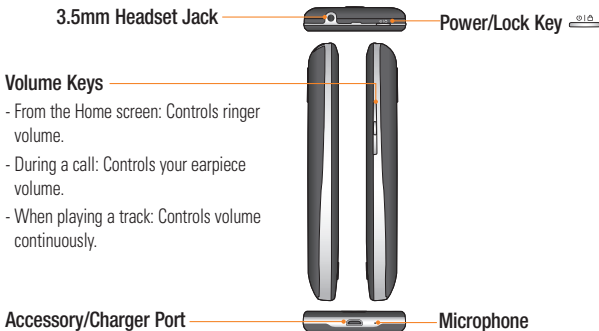
Warning

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

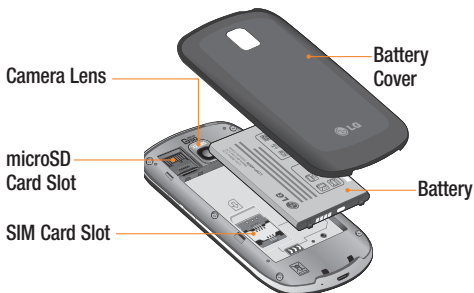
TIPS

- Press the **Menu Key** whenever you open an application to check what options are available.
- This phone does not support video calls.
- If your phone has errors when you use it or you cannot turn it on, remove the battery, install it again and turn it on after 5 seconds.

Side View



Rear View



Getting Started

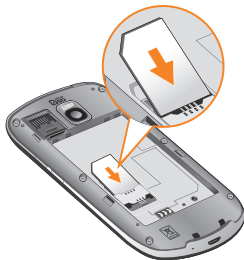
Installing the SIM card and battery

Before you can start exploring your new phone, you'll need to set it up. To insert the SIM card and battery:

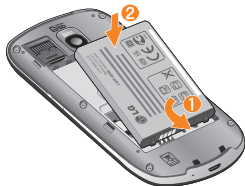
- 1 Hold the phone on your hand firmly. With the other hand, firmly press your thumb on the back and lift off the battery cover with your forefinger using the fingertip cutout at the top of the phone.



- 2 Slide the SIM card into the SIM card slot. Make sure the gold contact area on the card is facing downwards.



- 3 Insert the battery into place by aligning the gold contacts on the phone and the battery.



- 4 Replace the back cover of the phone (as demonstrated below). Apply a steady downward pressure until the battery cover clicks into place.



Charging your phone

Plug the USB cable (as shown below) into the phone's accessory/charger port. Make sure the 'B' side is facing upwards.



NOTE

The battery must be fully charged initially to improve battery lifetime.

NOTE

Your phone has an internal antenna. Be careful not to scratch or damage this rear area, as that will cause loss of performance.

Getting Started

Installing the microSD card

To store multimedia files, such as images taken using the camera, you must insert a microSD card into your phone.

To insert a microSD card:

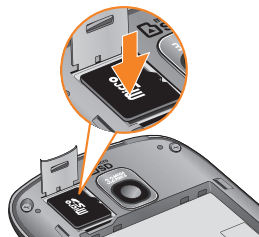
! NOTE

This device supports up to a 32GB microSD card.

- 1 Turn the phone off before inserting or removing the microSD card. Remove the battery cover.



- 2 Slide the slot protector upwards to unlock it and flip it open. Then insert the microSD card into the slot. Make sure the gold contact area is facing downwards.



- 3 Flip the slot protection down to close it. Then slide the slot protection downwards to lock it and replace the battery cover.



Warning

Do not insert or remove the microSD card when the phone is on. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted.

Formatting the microSD card

Your microSD card may already be formatted. If it isn't, you must format it before you can use it.

NOTE

All files on the card are deleted when you format the microSD card.

- 1 From the Home screen, press the **Menu Key**.
- 2 Touch **Settings**.
- 3 Touch **SD card & phone storage**.
- 4 Touch **Unmount SD card** and **OK** to confirm.
- 5 Touch **Format SD card**(twice).
- 6 If you set an unlock pattern, enter it and touch **Erase Everything**. The card will then be formatted and ready to use.

NOTE

If there is content on your microSD card, the folder structure may be different after formatting since all the files will have been deleted.

Switching between and Exiting Applications

Multi-tasking is easy with Android because open applications keep running even when you open another application. There is no need to quit an application before opening another. Use and switch among several open applications. Android manages each application, stopping and starting them as needed, to ensure that idle applications don't consume resources unnecessarily.

Switching between applications

- Press and hold the **Home Key**. A list of recently used applications will be displayed. Then touch the application you want to access.

To stop/exit an application

- 1 From the Home screen, press the **Menu Key** and touch **Settings > Applications > Manage applications**.
- 2 Touch the desired application and touch **Force stop** to exit.

Your Home screen

Touch-screen tips

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

Touch - To choose a menu/option or open an application, touch it.

Touch and hold - To open an options menu or grab an object you want to move, touch and hold it.

Drag - To scroll through a list or move slowly, drag across the touch screen.

Flick - To scroll through a list or move quickly, flick across the touch screen (drag quickly and release).

❗ NOTE

- To select an item, touch the center of the icon.
- Do not to press too hard; the touch screen is sensitive enough to pick up a light, firm touch.
- Use the tip of your finger to touch the option you want. Be careful not to touch any other keys or icons.

Proximity sensor

When receiving and making calls, this sensor automatically turns the backlight off and locks

the touch keypad by sensing when the phone is near your ear. This extends battery life and prevents the touch keypad from activating unintentionally during calls.

Lock your phone

When you are not using the LG Phoenix, press the Power/Lock Key to lock your phone. This helps prevent accidental presses and saves battery power.

Also, if you do not use the phone for a while, the Home screen or other screen you are viewing, is automatically replaced with the lock screen after 30 seconds of inactivity to conserve the battery and prevent pocket dialing.

To wake up your phone, press the **Menu, Home, Back, Search or Power Keys**. The lock screen will appear. Touch the lock icon and drag your finger to the right to unlock your Home screen. The last screen you were working on opens.

❗ NOTE

- The automatic screen timeout can be configured manually in Settings.
- If there are any programs running when you lock the phone, they may still be running in

Your Home screen

lock mode. It is recommended that you exit all programs before entering the lock mode to avoid unnecessary charges. (e.g., phone call, web access and data communications)

Setting an unlock pattern: You can draw your own unlock pattern by connecting four or more dots.

To unlock the phone, draw the pattern you set on the screen.

! Caution

If there are more than 5 pattern drawing errors in a row, you will be required to wait for 30 seconds to retry.

Unlock screen

Whenever your phone is not in use, it will return to the lock screen. Slide your finger from left to right to unlock the screen.



When the screen is locked, you can quickly turn off your ringer and put the phone in silent mode, by sliding finger from right to left.



Silent Mode

To set phone to silent when screen is unlocked, open the Notifications panel and touch . The icon will change to . To take it off Silent, touch button again or, if the lock screen is displayed, simply drag  to the left.

Home

Simply swipe your finger to the left or right to view the different panels.

You can also customize each panel with shortcuts, folders, and wallpapers. You can also customize each panel with widgets, which are shortcuts to your favorite applications.

! NOTE

On your LG Home screen, you can view quick keys at the bottom of the screen. The quick

keys provide easy, one-touch access to the functions you use the most.

Quick Keys



Touch the **Phone** icon to bring up the keypad to make a call.



Touch to open your Contacts list.



Touch the **Applications Launcher Key** to view all your installed applications.



Touch the **Messaging** icon to access the messaging application.



Touch to open your phone's web browser.

Adding shortcuts and widgets to your Home screen

You can customize your Home screen by adding quick access elements, such as shortcuts, widgets, or folders to it.

- **Shortcuts:** Add application, web bookmark, contact, email, and music playlist shortcuts to the Home screen.
- **Widgets:** Add dynamically updating widgets to your Home screen to allow quick access to applications without opening the full application.
- **Folders:** Add folders to organize contacts and shortcuts.

To do so, use the following steps:

- 1 From the Home screen, press the **Menu Key** and touch **Add**. Or touch and hold an empty part of the Home screen.
- 2 On the **Add to Home screen** menu, touch the type of item you want to add. For example, touch **Folders** from the list and touch the folder you wish to add to the Home screen.
- 3 You will see a new icon on the Home screen. Drag it to the desired location on the desired panel and release your finger from the screen.

❗ TIP

To add a preloaded application or an application you have downloaded from the Android Marketplace to the Home screen, simply touch and hold the icon you want in the Application Launcher to add to the Home screen.

❗ TIP

To delete an application icon from the Home screen, touch and hold the shortcut icon you want to delete and drag to  at the bottom of the screen.

Your Home screen

TIP

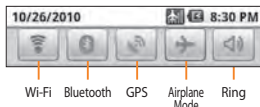
You cannot delete the preloaded applications. (Only their icons can be deleted from the screen).

Getting back to a recently used application

- 1 Press and hold the **Home Key**. The screen will display the icons of applications that you have used recently.
- 2 Touch an icon to open its application or press the **Back Key** to return to the current application.

Notifications panel

The Notifications panel runs across the top of your screen.

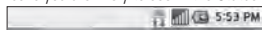


Touch and slide the Notifications panel down with your finger. Or, from the Home screen, press the **Menu Key** and touch **Notifications**. From here, you can check and manage Wi-Fi, Bluetooth, GPS, Airplane mode, Ringer and view other notifications.

Viewing the Status Bar

The Status Bar uses different icons to display phone information, such as signal strength, new messages, battery life, and active Bluetooth and data connections.

Below is a table explaining the meaning of icons you are likely to see in the Status Bar.



[Status Bar]

Icon	Description
	No SIM card is installed
	No signal

Icon	Description
	Connected to a Wi-Fi network
	A wired headset is connected
	Call forwarded
	Call on hold
	Speakerphone is on
	Phone microphone is muted
	Missed call
	Bluetooth is on
	Connected to a Bluetooth device
	System warning
	Alarm is set
	New voicemail
	Airplane mode is set
	Silent mode is set
	Vibrate mode is set

Icon	Description
	No microSD card installed
	Battery is fully charged
	Battery is charging
	Data in
	Data out
	Data in and out
	The phone is connected to a PC via USB cable
	Downloading data
	Uploading data
	GPS is on
	GPS is receiving location data
	USB tethering is active
	Mobile Hotspot is active

Your Home screen

Onscreen Keyboard

You can also enter text using the onscreen keyboard. The onscreen keyboard displays automatically on the screen when you need to enter text. To manually display the keyboard, simply touch a text field where you want to enter text.

There are two types of keypad that you can use, the Phone keypad and the QWERTY keypad.

TIP

To switch between the Qwerty Keypad and Phone Keypad, touch  and **Keypad types**. Then touch the keypad you wish to use.

The Phone keypad allows you to enter letters by touching the key labeled with the desired letters, similar to how you would on a traditional 12 key phone. You may have to touch a key up to four times to type the desired letter or number.



The QWERTY keypad shows a letter for each key, similar to on a computer keyboard.



You can also use this keypad in landscape mode. Turn phone to a horizontal position to use the landscape QWERTY keypad.



Entering text

 **Shift Key** - Touch once to capitalize the next letter you type. Double-tap for all caps. The colored circle on the button tells you if uppercase is locked on  or if it is just on for one character .

 **Setting Key**- Allows you to set the keyboard settings.

 **Number and Symbols Key** - Touch to change to 123 Mode and enter numbers and symbols.

 **Enter Key**- Adds another line when entering text.

 **Hide Keypad Key** - Removes the keypad from the screen.

 **Delete Key**- Deletes any text you have entered.

To enter a space, touch .

123 Mode

This mode allows you to enter numbers in a text message (a telephone number, for example) more quickly. Touch the keys corresponding to the required digits before manually switching back to the appropriate text entry mode by touching the  key.

TIP

You can also change your input method when typing between LG keyboard and Android Keyboard. To do so, press and hold a text field. Select **Input Method** from the menu and make your selection.

Entering accented letters

When you select French or Spanish as the text entry language, you can enter special French or Spanish characters (e.g., “á”).

From Phone Keypad

After the corresponding letter character disappears, press the same key repeatedly until you see the special character you want.

From Qwerty keyboard

To input the accent, press and hold the “á” key. After the accented character appears, touch it to enter it.

Google Account Set-up

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

Creating your Google account

- 1 From the Home screen, touch the **Applications Launcher Key** .
- 2 Touch **Gmail > Next > Create** to start the Gmail™ setup wizard.
- 3 Touch a text field to open the keyboard and enter your name and username for your Google account. When you finish entering the text, you can move to the next text field by touching **Next** on the keyboard.
- 4 When you're finished entering your name and username, touch **Next**. Your phone will communicate with Google servers and check for username availability.
- 5 Enter and re-enter your password. Then follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

Signing into your Google account

- 1 Enter your email address and password, then touch **Sign in**.
- 2 After signing in, you can use Gmail™ and take advantages of Google services on your phone.
- 3 Once you have set up your Google account, your phone will be automatically synchronized with your Google account on the web. (Depending on your synchronization settings.)

After signing in, your phone will sync with your Google services, such as Gmail™, Contacts, Google Calendar, and Picasa photo albums. You can also use Google Maps™, download applications from Android Market™, back up your settings to Google servers, and take advantage of other Google services on your phone.

IMPORTANT

- Some applications, such as Calendar, work only with the first Google Account you add. If you plan to use more than one Google Account with your phone, be sure to sign into the one you want to use with such applications first. When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone. If you don't sign into a Google Account during setup, you will be prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Android Market™.
- If you want to use the backup feature to restore your settings to this phone from another phone that was running Android release 2.0 or later, you must sign into your Google Account, during setup. If you wait until after setup is complete, your settings will not be restored.
- If you have an enterprise account through your company or other organization, your IT department may have special instructions on how to sign into that account.

Calls

Making a call

- 1 Touch  to open the keypad.
- 2 Enter the number on the keypad. To delete a digit, touch the **Clear** icon .
- 3 Touch the **Call** icon  to make a call.
- 4 To end a call, touch the **End** icon .

TIP

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

Calling your contacts

- 1 Touch  to open your contacts.
- 2 Scroll through the contact list or touch the **Search** box and enter the first letter(s) of the contact you want to call.
- 3 In the list that is displayed, touch the contact you want to call.
- 4 In the Contact Info screen, touch the phone number you wish to call.

Answering and rejecting a call

When the screen is locked

When your phone rings, drag the **Answer** icon  to the right.

Drag the **Decline** icon  to the left to reject an incoming call. Drag the **Send msg** bar upwards if you want to send a message to the caller. If the caller is unknown, this **Send msg** bar is not available.

When the screen is unlocked

When your phone rings, touch the **Answer** icon . Touch **Decline** icon  to reject an incoming call.

Touch the **Send msg** bar upwards if you want to send a message to the caller. If the caller is unknown, the **Send msg** bar is not available.

Adjusting the In-call volume

To adjust the In-call volume during a call, use the volume up and down keys on the right side of the phone.

Making a second call

- 1 During your initial call, touch .
Then enter the number you want to call.
- 2 Dial the number or search your contacts.
- 3 Touch the **Call** icon  to connect the call.
- 4 Both calls will be displayed on the call screen. Your initial call will be locked and put on hold.
- 5 Touch  to toggle between calls or touch  to make a conference call.
- 6 To end active calls, touch **End**. If there is no active call, it will end the call on Hold.
To end all calls at the same time, press the **Menu Key** and touch **End all calls**.

NOTE

You will be charged for each call you make.

Viewing your call logs

From the Home screen, touch  and the **Call log** tab.

View a complete list of all dialed, received, and missed voice calls.

TIP

Touch any single call log entry to view the date, time, and duration of the call.

TIP

Press the **Menu Key**, then touch **Clear call log** to delete all the recorded items.

Call settings

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

- 1 From the Home screen, press the **Menu Key** and touch **Settings**.
- 2 Touch **Call settings**.

Contacts

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

Searching for a contact

- 1 Touch  to open your contacts.
- 2 Press the **Search Key** and enter the contact name using the keypad.

Adding a new contact

- 1 Touch  and enter the new contact's number. Press the **Menu Key**, touch **Add to contacts** and then **Create new contact**.
- 2 If you want to add a picture to the new contact, touch . Choose from **Take photo** or **Select photo from gallery**.
- 3 Select the contact type by touching .
- 4 Touch a category of contact information and enter the details about your contact.
- 5 Touch **Done** to save the contact entry.

Favorite Contacts

You can classify frequently called contacts as favorites.

To add a contact to your favorites

- 1 From the Home screen, touch  to open your contacts.
- 2 Touch a contact to view its details.
- 3 Touch the star to the right of the contact's name. The star turns gold.

To remove a contact from your favorites list

- 1 From the Home screen, touch  to open your contacts.
- 2 Touch the **Groups** tab and touch **Favorites**.
- 3 Touch a contact to view its details.
- 4 Touch the gold star to the right of the contact's name. The star turns grey and the contact is removed from your favorites.

Messaging/Email

Messaging

Your phone combines SMS and MMS into one intuitive, easy-to-use menu.

Threaded box

Messages (SMS and MMS) exchanged with another party can be displayed in chronological order so that you can conveniently see an overview of your conversation.

Sending a message

- 1 Touch the  icon on the Home screen, then touch **New message** to create a new message.
- 2 Enter a contact name or phone number in the **To** field. As you enter the contact name, matching contacts appear. You can touch a suggested recipient. You can also add multiple contacts.

! NOTE

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

- 3 Touch the text field to start entering your message.
- 4 Press the **Menu Key** to open the options menu. Choose from **Call**, **Attach**, **Insert**

Smiley, Discard, Templates, All threads.

- 5 Touch **Send** to send your message.
- 6 The message screen opens, with your message after your name. Responses appear on the screen. As you view and send additional messages, a message thread is created.

! Warning

The 70-character limit may vary from country to country depending on how the SMS is coded and the language used in the message.

! Warning

If an image, video, or audio file is added to an SMS message, it will be automatically converted into an MMS message and you will be charged accordingly.

! NOTE

When you get an SMS message during a call, there will be an audible notification.

Using smileies

Live up your messages using smileies.

When writing a new message, press the **Menu Key**, then touch **Insert Smiley**.

Changing your message settings

Your phone's message settings are predefined, so you can send messages immediately.

You can change the settings based on your preferences.

Email

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

To open the Email application

- From the Home screen, touch **Email**.

The first time you open the **Email** application, a setup wizard opens to help you add an Email account.

Email Accounts screen

The Accounts screen

The Accounts screen lists your Combined Inbox and each of your Email accounts.

- 1 Open the Email application. If you're not on the Account screen, press the **Menu Key** and touch **Accounts**.



- Touch to open your Combined Inbox, with messages sent to all of your accounts.



- Touch to open a list of just your starred messages.



- Touch the folder icon to open a specific account's folders.

You can touch an account to view its Inbox. The account from which you send Email by default is indicated with a checkmark.

Your Combined Inbox

If you have configured Email to send and receive Email from more than one account, you can view all messages sent to all accounts in your Combined Inbox.

- 1 Touch **Email**.
- 2 From the Inbox, press the **Menu Key** and touch **Accounts**.

- 3 Touch **Combined Inbox** (on the Accounts screen). Messages in the Combined Inbox are color coded along their left sides, by account, using the same colors that are used for your accounts on the Accounts screen.

Only your account's most recent Email are downloaded to your phone. To download more (earlier) Email messages, touch **Load more messages** at the bottom of the Email list.

Reading Your Messages

Touch the message you want to read. The message opens in a screen that includes information about who sent it, the date it was sent, and other related information.

Responding to a Message

You can reply to it, forward it or even just delete it.

To delete a message

- ▶ While reading a message, touch the **Delete** button.
OR
- ▶ While reading a message, press the **Menu Key** and touch **Delete**.

For many types of accounts, deleted messages are moved to a Trash folder, so you can retrieve them in case they were deleted by mistake.

Other options

- ▶ To reply the message, touch the message you received from the Inbox and touch the **Reply** button.
- ▶ Touch and hold the recieved message until the pop-up appears. From the pop-up, you can reply, forward, delete and mark messages as read or unread.

Composing and Sending Email

To compose and send a message

- 1 While in the **Email** application, press the **Menu Key** and touch **Compose**.
- 2 Enter an address for the message's intended recipient. As you enter text, matching addresses are offered from your Contacts. Separate multiple addresses with commas.
- 3 Press the **Menu Key** and touch **Add Cc/Bcc** to copy other contacts or Email addresses.
- 4 Enter the text of the message.
- 5 Press the **Menu Key** and touch **Attach** to send a photo with the message.

6 Touch the **Send** button.

Saving and Accessing Draft Messages

If you're not ready to send the message, touch the **Save as draft** button to save it in the Drafts folder. Touch a draft message in the Drafts folder to resume working on it. Your message will also be saved as a draft if you touch the **Back Key**  before sending it. Touch the Discard button to abandon and delete a message, including any saved drafts. If you are not connected to a network (for example, if you are working in airplane mode) the messages that you send are stored in your Outbox folder until you are connected to a network again. If it contains any pending messages, the Outbox is displayed on the Accounts screen.

NOTE

Please note that messages sent using a Microsoft Exchange account will not be saved on the phone; they will, however, be saved on the Exchange server itself.

If you want to see your sent messages in the Sent folder, you will often need to open the Sent folder and touch **Refresh** from the options menu.

Working with Account Folders

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

Adding and Editing Email Accounts

To add an Email account

- 1 From the Accounts screen, press the **Menu Key** and touch **Add account**.
- 2 Touch the type of account you would like to add and enter your Email account settings.
- 3 Enter a name for the account, confirm how you want your name to appear in outgoing mail, then touch the **Done** button.

To change an account's settings

- 1 Open the Accounts screen.
- 2 Touch and hold the account you want to edit. In the menu that opens, touch **Account settings**.

To delete an Email account

- 1 Open the Accounts screen.
- 2 Touch and hold the account you want to delete.

- 3 Touch **Remove account** in the menu that opens.
- 4 Touch the **OK** button in the dialog box to confirm that you want to delete the account.

Social Networking

With your phone, you can enjoy social networking and manage your micro-blog in on-line communities. You can update your current status, upload photos, and view your friends' status updates in real-time.

You can add your Facebook and Twitter accounts to your phone. If you don't have an account, you can visit their sites to set one up.

NOTE

Additional costs may be incurred when connecting and using online services. Check your data charges with your network provider.

Adding an account to your phone

- 1 From the Home screen, touch the **Applications Launcher Key** to view your installed applications and choose any social networking application you want to use. If

you don't have an account yet, touch **Sign up now** and create an account.

- 2 Enter your email address and password that you set up for your social networking account, then touch **Log in**.

NOTE

If you add a social networking widget on your Home screen, the widget will show your status when your phone receives updates from the network. You can also access the social community directly by touching the widget.

Viewing and updating your status

- 1 Open the social networking application you want to update.
- 2 You can see the current status of your social application, such as Twitter or Facebook.
- 3 You can update your status with comments or upload photos.

TIP

You can use information about friends only in your social network(s) or sync all data to Contacts.

Syncing accounts on your phone

You can sync information from your social networking accounts with your Contacts and other functions on your phone, if applicable. From the Home screen, press the **Menu Key** and touch **Settings > Accounts & sync Add account**. Choose the account you want to synchronize and enter the necessary information.

Removing accounts on your phone

From the Home screen, press the **Menu Key** and touch **Settings > Accounts & sync**. Touch the account(s) you want to delete, then touch **Remove account** (twice).

Camera

Getting to know the viewfinder

Brightness – This defines and controls of the amount of sunlight entering the image. Slide the brightness indicator along the bar, towards “-” for a lower brightness image, or towards “+” for a higher brightness image.

Zoom – Zoom in or zoom out. Alternatively you can use the Volume Keys.



Video mode – Slide this icon down to switch to video mode.

Capture – Allows you to take a photo.

Gallery – This enables you to access your saved photos and videos within the camera mode. Simply touch and your gallery will appear on the screen.

Settings – Touch this icon to open the settings menu. See **Using the advanced settings**.

Focus – Touch this icon to select your focus options. See **Using the focus mode**.

Scene mode – Choose from **Auto**, **Portrait**, **Landscape**, **Sports**, **Night**, and **Sunset**.

! NOTE

You need to insert a microSD card first to take a picture. Without inserting a microSD card, you will not be able to take a picture nor save the picture you had taken.

! NOTE

You can close all the shortcut options to give a clearer viewfinder screen. Just touch the center of the screen once. To recall the options, touch the screen again.

Using the focus mode

You can select the following focus mode options:

Auto Focus – Set the camera to focus automatically.

Macro – Macro mode allows you to take extreme close-ups. If you are trying to take a close-up shot but the focus box remains red, try turning the macro mode on.

Face tracking – If you set Face tracking and take a photo, your camera detects and focuses on human faces automatically.

Manual – Set the camera to focus manually.

Taking a photo

- 1 From the Home screen, touch **Camera**.
- 2 Holding the phone horizontally, point the lens towards the subject you want to photograph.
- 3 Touch and hold the capture button lightly, and a focus box will appear in the center of the viewfinder screen.
- 4 Position the phone so you can see the subject in the focus box.

5 When the focus box turns green, the camera has focused on your subject.

6 Release the capture button.

Once you've taken the photo

Your captured photo will appear on the screen.

Share Touch to share your photo as **Bluetooth, Email, Facebook, Gmail, Messaging, Picasa** or **Twitter**.

NOTE

Additional charges may apply when MMS messages are sent while roaming.

Set as Touch to use the image as **Contact icon** or **Wallpaper**.

Rename Touch to edit the name of the selected picture.

 Touch to delete the image.

 Touch to take another photo immediately. Your current photo will be saved.

 Touch to view the Gallery of your saved photos.

Using the advanced settings

In the viewfinder, touch  to open the advanced options.

You can change the camera settings by scrolling the list. After selecting the option, touch the **Back** key.

Image size – Touch to set the size (in pixels) of the picture you take. Select a pixel value from the following options: **3.2M** (2048x1536), **2M** (1600x1200), **1M** (1280x960), **VGA** (640x480), **QVGA** (320x240).

ISO – The ISO rating determines the sensitivity of the camera's light sensor. The higher the ISO, the more sensitive the camera will be. This is useful under darker conditions. Select from ISO values of **Auto**, **400**, **200** and **100**.

White balance – Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

Color effect – Choose a color tone for your new photo.

! NOTE

You can change a color picture to black and white or sepia, but you cannot change a black-and-white or sepia picture to color.

Timer – The self-timer allows you to set a delay after the shutter is pressed. Select **Off**, **3 secs.**, **5 secs.**, or **10 secs.** This is ideal if you want to be included in a photo.

Shot mode – Choose from **Normal**, **Continuous shot**, **Smile shot**, **Beauty shot**, **Art shot**, **Panorama**, **Face effect** and **Cartoon**.

Image Quality – Choose from **Super fine**, **Fine**, and **Normal**. The finer the quality, the sharper the photo. However, the file size will increase as a result, which means you'll be able to store fewer photos in the memory.

Auto review – If you set Auto review on, it will display the picture that was just taken automatically.

Shutter sound – Select one of the four shutter sounds.

Tag location – Activate to use your phone's location-based services. Take pictures wherever you are and tag them with the location. If you upload tagged pictures to a blog that supports geotagging, you can see the pictures displayed on a map.

! NOTE

This function is only available when GPS is active.

Reset  – Restore all camera default settings.

? – Touch whenever you want to know how a function operates. This will provide you a quick guide.

TIP

When you exit the camera, all settings will return to their defaults, except image size and image quality. Any non-default settings must be reset, such as color tone and ISO. Check these before you take your next photo.

TIP

The settings menu is superimposed over the viewfinder, so when you change elements of the image color or quality, you will see a preview of the image change behind the settings menu.

Viewing your saved photos

You can access your saved photos from within the camera mode. Just touch  and your Gallery will be displayed.

TIP

Flick left or right to view other photos or videos.



– Touch to see slide show.



– Touch to share the contents or delete.

Touch **More** for the following options below.

Details - View information about the photo.

Set as - Set the photo as a **Contact icon** or **Wallpaper**.

Crop -Crop your photo. Move your finger across the screen to select the area.

Rotate - You can rotate the photo left or right.

Adjusting the volume when viewing a video

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

Setting a photo as wallpaper

- 1 Touch the photo you want to set as wallpaper to open it.
- 2 Touch the screen to open the options menu.
- 3 Touch **Menu > More > Set as > Wallpaper**.

Video camera

Getting to know the viewfinder

Brightness – This defines and controls of the amount of sunlight entering the Video. Slide the brightness indicator along the bar, towards “-” for a lower brightness Video, or towards “+” for a higher brightness Video.

Zoom – Zoom in or zoom out. Alternatively you can use the Volume Keys. Before starting record a video, you can use the zoom function. You cannot control the zoom function during recording.



Camera mode – Slide this icon up to switch to camera mode.

Record – Allows you to start recording.

Gallery – This enables you to access your saved photos and videos from within the video camera mode. Simply touch and your Gallery will appear on the screen.

Settings – Touch this icon to open the settings menu. See **Using the advanced settings**.

Scene mode – Set the camera to adjust to the environment. Choose from **Auto**, **Portrait**, **Landscape**, **Sports**, **Night**, and **Sunset**.

Video size – Touch to set the size (in pixels) of the video you record. Choose your video image size from **VGA (640x480)**, **QVGA (320x240)** or **QCIF (176x144)**.

Video camera

Shooting a video

- 1 From the Home screen, touch **Camera** and slide the camera mode button to change to Video mode. The icon will change to .
- 2 The video camera's viewfinder will appear on the screen.
- 3 Holding the phone horizontally, point the lens towards the subject of the video.
- 4 Touch the record button once to start recording.
- 5 REC will appear at the bottom of the viewfinder with a timer showing the length of the video.
- 6 Touch  on the screen to stop recording.

After recording a video

A still image representing your video will appear on the screen.

Play Touch to play the video.

Share Touch to share your video via **Bluetooth**, **Email**, **Gmail**, **Messaging**, or **YouTube**.

! NOTE

Additional charges may apply when MMS messages are downloaded while roaming.

Rename Touch to edit the name of the selected video.

 Touch to record another video right away. Your current video will be saved.

 Touch to delete the video you just recorded. Confirm by touching **OK**. The viewfinder will reappear.

 Touch to view the Gallery of your saved videos.

Using the advanced settings

Using the viewfinder, touch  to open the advanced options.

Adjust the video camera settings by scrolling the list. After selecting the option, touch the **Back key**.

White balance – The white balance ensures any the white areas in your video are realistic. To enable your camera to adjust the white balance correctly, you may need to determine the light conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

Color effect – Choose a color tone to use for your new view.

Duration – Set a duration limit for your video. Choose between **Normal** and **MMS** to limit the recording time and share the video as an MMS.

If you set Video Duration as MMS, the video size will be set as 176x144 automatically and you cannot change the size. You can change the size only if you choose Normal.

Video Quality – Choose from **Super fine**, **Fine** and **Normal**.

Audio recording – Choose **Mute** to record a video without sound.

Auto review – If you turn Auto review on, it will play back the video you just recorded automatically.

Reset  – Restore all video camera default settings.

?  – Touch whenever you want to know how a function operates. This will provide you a quick guide.

TIP

You can change a video shot in color to black and white or sepia, but you cannot change a black-and-white or sepia video to color.

Watching your saved videos

- 1 In the viewfinder, touch .
- 2 Your Gallery will appear on the screen.
- 3 Touch a video to play it automatically.

Multimedia

You can store multimedia files to a microSD card to have easy access to all your image and video files.

Touch the **Applications Launcher Key**, then touch **Gallery**.

❗ NOTE

Make sure you install a microSD card into the phone to save photos and access all your pictures. Without a microSD card, the phone will not display any photos or videos unless you have them stored in a Picasa album.

View mode

When you open the Gallery, your photos will be presented in Folder view. Once you open a folder, your photos will be in Grid view. When you touch a photo from Grid view, it will be displayed in Full view.

Timeline view

The phone's **Gallery** provides a timeline view of your photos and videos. From the Grid view mode, drag  to the right. The date you took your photos will be displayed starting with the most recent.

If you select a specific date, all the photos you took on that day will be grouped over a white background.

My Images options menu

Touch a photo and press the **Menu Key** twice to see the following available options: **Share**, **Delete**, **Details**, **Set as**, **Crop** and **Rotate Right/Left**.

Sending a photo

- 1 To send a photo, touch and hold the photo you want.
- 2 Touch **Share** and choose from **Bluetooth**, **Email**, **Gmail**, **Messaging**, **Twitter**, **Facebook** or **Picasa**.
- 3 When you choose **Email**, **Gmail** or **Messaging**, your photo will be attached to a message, which you can then write and send normally.

❗ TIP

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

Sending a video

- 1 To send a video, touch and hold the video you want.
- 2 Touch **Share** and choose from **Bluetooth, Email, Gmail, Messaging,** or **YouTube.**
- 3 When you choose **Email, Gmail** or **Messaging,** your video will be attached to a message, which you can then write and send normally.

Using an image

Choose images to use as wallpaper or identify callers.

- 1 Touch and hold a photo, then touch **More > Set as.**
- 2 Choose from **Contact icon** or **Wallpaper.**

Viewing a slideshow

To view a slideshow of your photos, open the Gallery and touch a photo. Once the photo is displayed, touch the screen to see the menu. Touch **Slideshow** to begin the slideshow of all your photos.

View photo details

You can view a photo's detailed information, such as the name, date, time, size, and type.

While viewing a photo, touch **Menu > More > Details.**

Transferring files using USB mass storage devices

To transfer files using a USB device:

- 1 Connect the phone to a PC using a USB cable.
- 2 If you haven't installed the LG Android Platform Driver on your PC, you need to change the settings manually. From the Home screen, press the **Menu Key** and touch **Settings > SD card & phone storage > Mass storage only.**
- 3 Touch **Turn on USB storage.**
- 4 You can view the mass storage content on your PC and transfer the files.

! NOTE

You need to insert the microSD card first. Without an microSD card, you cannot use USB mass storage.

! NOTE

If you installed the LG Android Platform Driver, you will see a pop up saying, 'Turn on USB storage' immediately after connecting the phone to the PC.

Music

Your phone has a music player that lets you play all your favorite tracks. To access the music player from the Home screen, touch the **Applications Launcher Key** and touch **Music**.

How to save music/video files to the phone

Connect your phone to the PC using the USB cable.

You'll receive a notification that the USB is connected. Touch **Turn on USB storage > OK**. Then open the folder you wish to view from your computer.

If you did not install the LG Android Platform Driver on your PC, you need set it manually. For more information, refer to 'Transferring files using mass storage devices'.

Save music or video files from the PC to the phone's removable storage.

- You may copy or move files from the PC to the phone's removable storage using a card reader.
- If there is a video file with a subtitle file (.smi file with the same name as the video file), place them in the same folder to display the subtitle automatically when playing the video file.
- When downloading music or video files, copyright must be secured. Please note that a corrupted file or file with a wrong extension may cause damage to the phone.

How to play music/video files on the phone

Playing music/video files

Locate the file you want in the Gallery and touch it to play it.

Playing a song

- 1 From the Home screen, touch the **Applications Launcher Key** and touch **Music**.
- 2 Touch the **Songs** tab.

- 3 Touch the song you want to play.
- 4 Touch  to pause the song.
- 5 Touch  to skip to the next song.
- 6 Touch  to go back to the beginning of the song. Touch  twice to go back to the previous song.

To change the volume while listening to music, press the up and down Volume Keys on the right side of the phone.

To display the options for a song, touch and hold any song in the list. You will see the following options: **Play**, **Add to playlist**, **Use as phone ringtone**, **Delete**, **Details**, and **Search**.

Working with Playlists

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

To create a playlist

- 1 When viewing a list of songs in the library, touch and hold the first song you want to add to the new playlist.
- 2 Touch **Add to playlist**.

- 3 Touch **New**.

- 4 Enter a name for the playlist, then touch **Save**.

The new playlist is added to the **Playlists** library.

You can also add the song that is playing in the Playback screen as the first song in a playlist by pressing the **Menu Key**, then touching **Add to playlist** or touching **Save as playlist** to save all the songs in an album that you're playing as a playlist.

To remove a song from a playlist

- 1 Open a playlist.
- 2 Touch and hold the song you want to remove, then touch **Remove from playlist** or when viewing the currently playing playlist, press the **Menu Key**, then touch **Clear playlist** to remove all the songs from the current playlist.

To rename or delete a playlist

- 1 Open the **Playlist** library.
- 2 Touch and hold the playlist to display the options menu, then touch **Delete** or **Rename**.

! NOTE

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.

Google applications

About Google applications

Google applications, including mobile versions of Gmail, Google Talk, Google Calendar, and Google Maps, are loaded on your phone.

- 1 First, set up a Google account. Then enter your user name and password and sign in.
- 2 After signing in, your contacts, email, and calendar in your Google account will automatically synchronize with your phone.

Google Maps™

To open Google Maps and view your location

- 1 Touch **Maps** on the Home screen or in the Launch screen.
- 2 Touch the My location icon  on the map.

The map centers on a blue dot that indicates your location. A blue circle around the dot indicates that your actual location is within the circle.

To get an address and additional information for a location

- ▶ Touch and hold a location on the map. A balloon with the address and a thumbnail

from Street View (if available) opens over the location.

- ▶ Touch the balloon to access additional options.

To view map, satellite, or traffic layers

- ▶ Touch the Layers icon  on the map and select a layer option. You can choose from Traffic, Satellite, Terrain, Latitude, or More Layers.

Searching For Locations and Places

You can search for a location and view it on a map. You can also search for places on the map that you're viewing.

To search for a location

- 1 While viewing a map, press the **Menu Key** and touch **Search** or press the **Search Key**.
- 2 In the search box, enter the place you're looking for. You can enter an address, a city, or a type of business or establishment. For example, "theater in New York".
- 3 Touch the Search icon.

Markers with letter labels indicate search matches on the map.

Getting Directions

To get directions

- 1 While viewing a map, press the **Menu Key** and touch **Directions**.
- 2 Enter a starting point in the first text box and your destination in the second text box.
To reverse directions, press the **Menu Key** and touch **Reverse Start & End**.
- 3 Touch the icon for car, public transit, bicycling, or walking directions.
- 4 Touch **Go**. The directions to your destination appear in a list.

To view turn-by-turn directions in a list

You can view each turn in your route as a list of written directions.

- ▶ When viewing a list of directions, touch the **Navigate** icon to view turn-by-turn directions in Navigation View.

To search for locations along your route

You can search for businesses, points of interest, and other features along your route. When you search while navigating, your results include locations along your route, rather than locations that are near your current location.

- ▶ Press the **Search Key** and search for locations of interest.

The results are displayed as markers along your route; the first result is labeled. You can use the left and right arrow buttons to move from result to result, zoom in and out, or touch a label for more information about the marker.

- ▶ When you're finished, touch the **Navigation** icon to return to Navigation View.

Starred Places

Starred Places bookmarks your favorite places, such as addresses or local businesses, to be able to find them quickly later.

To view Starred Places

While viewing a map, press the **Menu Key** and touch **Starred Places**.

Clear Map

Clear any information, such as routes and search results, from the map.

To clear a map

While viewing a map, press the **Menu Key** and touch **Clear Map**.

Latitude

Finding Your Friends with Google Latitude™

Google Latitude lets you and your friends view each others' locations on maps and get directions to your friends' locations using Google Latitude. Your location is not shared automatically. It is by invitation only.

You must join Latitude and then invite your friends to view your location or accept invitations from your friends.

To join Latitude

- ▶ While viewing a map, press the **Menu Key** and touch **Join Latitude**.

The first time you join Latitude, you're prompted to accept or reject the Google privacy policy. After you've joined Latitude, the Join Latitude item changes to **Latitude**.

To open Latitude

After you join Latitude, you can open it to find your friends and view their updates.

- ▶ While viewing a map, press the **Menu Key** and touch **Latitude**.

To invite friends to share their locations

After you join Latitude, you can start sharing your location with your friends. Only friends whom you have explicitly invited or accepted can see your location.

- 1 Open Latitude, press the **Menu Key** and touch **Add friends**.
- 2 Touch **Select from Contacts** or **Add via email address** in the menu that opens.
- 3 Touch **Add friends** at the bottom of the screen. If your friends already use Latitude, they receive an email request and a notification on Latitude. If they have not yet joined Latitude, they receive an email inviting them to sign in to Latitude with their Google Account.

Places

To find places

Touch the **Places** icon while in Google Maps to find different venues, such as gas stations, coffee shops, bars, restaurants, etc.

Once you select a category, you will see a list of closest matches, including their distance, compass bearing, description and even user reviews. You can customize your own location search categories, and even add the Places icon to your Home screen.

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❗ Tip

While viewing a map, press the **Menu Key** and touch **More** for the following options: **Labs, Cache Settings, Help, Terms, Privacy & Notices** and **About**.

Market™

Android Market™ lets you browse through and download thousands of fun and useful applications and games. You can check other users' comment regarding an application or you can post your own comments. If you install applications and games from Android Market™, they appear in the phone's menu below the preloaded applications, and you can find them by scrolling down with your finger. You can open downloaded applications from the Market by pressing the **Menu Key** and touching **My apps**.

To download applications and games

- 1 From the Android Market home page, touch a category near the top of the screen.
- 2 Scroll to view subcategories and touch the one you want to explore.
- 3 Touch an application to open its details screen, or further sort the subcategory by touching **Top paid, Top free, or Just in**.
- 4 Touch the application you desire to install.

The descriptions and the prices of the application will be displayed.

- 5 Touch the **price** button at the top right of the screen for paid applications. For free applications, touch the **FREE** button. The applications will then be downloaded and installed.

❗ NOTE

To purchase a paid app, you'll need to set up a payment method with Google Checkout™. You have the option to use a credit card or charge to your carrier bill.

❗ NOTE

When you want to exit a game or application, use the Home or Back Key, which will return you to the Home screen. Or select Menu (or Options) within the game or application and select Exit. (Exit option may vary by game/application). Ending applications that continue to run in the background (after going back to the Home screen) will help conserve battery life and reduce unwanted data usage.

❗ NOTE

The accuracy of the digital compass may be negatively affected by magnetic and other environmental interferences. Do not rely solely on the digital compass to determine

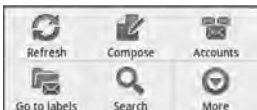
your location or direction. Only use it for basic navigation assistance. The compass needs to be calibrated the first time you use it and you may need to recalibrate it on occasion to get the best performance possible.

Gmail™

Gmail™ can be configured when you first set up your phone. Depending on your synchronization settings, Gmail™ on your phone is automatically synchronized with your Gmail™ account on the web. The inbox conversations list is your default Gmail™ view.

Press the **Menu Key**, then touch **Refresh** to send or receive new email and to synchronize your email with your Gmail™ account on the web. Press the **Menu Key** for the following additional options: **Compose**, **Accounts**, **Go to labels**, **Search** and **More**.

Press the **Menu Key** and touch **Accounts** > **Add account** to add another Gmail account. You can also change the settings by pressing the **Menu Key** and touching **More** > **Settings** from any screen within an account.



Google Talk™

Google Talk™ is Google's instant messaging program. It lets you communicate with other people who also use Google Talk™.

Press the **Menu Key** for the following available options.

All friends – Displays all friends you can communicate with.

Add friend – Send invitations to chat.

Search – It searches for contacts to chat with or any chat records that contain the word(s) you entered.

Sign Out – Sign out from chat. When you touch the Talk icon from the Home screen, you will be signed in automatically if you activate **Automatically sign in**.

Settings – Allows you to adjust various settings.

More – Choose from **Close all chats** to close all the current chats, **Invites** to see a list of friends you have invited to chat, or **Blocked** to view a list of friends you have blocked.

Changing Google Talk Settings

You can configure Google Talk to send you a notification of each message that you receive in a chat and also to sound a ringtone or vibrate the phone.

Google applications

You can also configure Google Talk to sign you in automatically when you turn on your phone, and you can set whether the mobile indicator is displayed next to your name in other people's Friends lists.

To configure notifications for new Google Talk messages

- 1 From the Friends list, press the **Menu Key**, then touch **Settings**.
- 2 Checkmark **IM notifications** to receive a notification in the Status Bar when a new chat message arrives.
- 3 Touch **Select ringtone** to choose a ringtone that will ring to notify you of a new chat.
- 4 Touch **Vibrate** to choose the vibration setting when you receive a notification of a new chat.

To show or hide the mobile indicator to friends

- 1 From the Friends list, press the **Menu Key**, then touch **Settings**.
- 2 Checkmark or uncheck **Mobile indicator**. If Mobile indicator is checkmarked, your friends see an outline of an Android™ next

to your name in their Friends list when you are signed into Google Talk on an Android phone.

To set whether you sign into Google Talk automatically

- 1 From the Friends list, press the **Menu Key**, then touch **Settings**.
- 2 Checkmark or uncheck **Automatically sign in**. When Automatically sign in is checked, you are signed into Google Talk when you turn on your phone.

To set Google Talk to change your status

- 1 From the Friends list, press the **Menu Key**, then touch **Settings**.
- 2 Checkmark or uncheckmark **Automatic away-status**.
When Automatic away-status is checkmarked, your status will automatically be changed to Away when the screen is turned off.

Setting the alarm

- 1 From the Home screen, touch the **Applications Launcher Key** and touch **Clock**.
- 2 To add a new alarm, touch .
- 3 Touch **Add alarm** and set the alarm time. After you set the time, the phone will let you know how much time is left before the alarm sounds.
- 4 Set **Repeat**, **Ringtone** or **Vibrate** and add **Label** to name the alarm. Touch **Done**.
- 5 Press the **Menu Key** to add another alarm or adjust the alarm settings.

Using the calculator

- 1 From the Home screen, touch the **Applications Launcher Key** and touch **Calculator**.
- 2 Touch the number keys to enter numbers.
- 3 For simple calculations, touch the function you want (+, -, x, or ÷), followed by =.
- 4 For more complex calculations, press the **Menu Key**, touch the **Advanced panel**, then choose an option.

Adding an event to your calendar

NOTE

You must create a Google account to use Calendar.

- 1 From the Home screen, touch the **Applications Launcher Key** and touch **Calendar**.
- 2 To view an event, touch the date. If you want to add an event, touch and hold a date, then touch **New event**.
- 3 Touch the **What** field and enter the event name. Check the date and enter the start and end time you want your event to begin and finish.
- 4 Touch the **Where** field to enter the location.
- 5 To add a note to your event, touch the **Description** field and enter the details.
- 6 To repeat the event, set **Repetition**, and set **Reminders**, if necessary.
- 7 Touch **Done** to save the event in the calendar. A colored square in the calendar will mark all days that have saved events. An alarm will sound at the event start time if you set it.

Changing your calendar view

- 1 From the Home screen, touch the **Applications Launcher Key** and touch **Calendar**.
- 2 Press the **Menu Key** and touch **Day**, **Week**, **Agenda**, or **Month**.

ThinkFree Office

With ThinkFree Office, you can create, view and edit document files in an email or on a microSD card inserted in your device. The ThinkFree Office application supports the following file formats: txt, doc, docx, xls, xlsx, ppt, pptx, pdf.

Create a New Document

- 1 From the Home screen, touch the **Applications Launcher Key** > **ThinkFree Office**.
- 2 Touch **Accept** > **Activate now** > **Close**. (This is necessary only when you launch this application for the first time.)
- 3 Touch the **My Docs** tab for folders and documents on your microSD card.
- 4 Press the **Menu Key**, then touch **New** to start a new document.
- 5 Touch the type of document and enter a name for the document, then touch **OK**.

- 6 Enter contents in the document using the tools at the bottom of the screen.
- 7 When you're done working on the document, press the **Menu Key**, touch **File** > **Save** (or **Save as** and enter a new document name), then press the **Back Key** to exit.

NOTE

To save without exiting, simply touch **Save** at the bottom of the screen and continue working on the document.

View and edit a document on your device

- 1 From the Home screen, touch the **Applications Launcher Key** > **ThinkFree Office**.
- 2 Touch the **My Docs** tab for folders and documents on your microSD card.
- 3 Touch the document you want to view or edit. If it's not in the root directory, touch the folder where it's stored, then touch the document name to open it.

NOTE

You can also open an attachment in an email by touching the attachment in the message.

- 4 The document opens for you to view. If you want to edit it, press the **Menu Key**, then touch **Edit**.

- ▶ To move between pages or pan through the document, scroll in the corresponding direction.
- ▶ To change the zoom level, press the **Menu Key**, touch **Zoom**, then touch the zoom level you want.
- ▶ Use the toolbar at the bottom of the screen to make edits to the document (Word, text, or Excel file).
- ▶ Press the **Menu Key** for additional menu options such as search, preferences, and more.
- 5 When you're finished editing, touch **Save**, then press the **Back Key** to exit.

ThinkFree Office document tools

The ThinkFree Office application has a toolbar that appears automatically when you create a document. To display the toolbar in an existing document, press the **Menu Key**, then touch **Edit**. Touch a toolbar icon and corresponding tools display in a bar beneath it for you to touch and use. Left and right arrows on the toolbar indicate that you can scroll horizontally for more icons. Scrolling works independently. While a tool is selected (for example the Select text tool), you can scroll the toolbar to touch an other toolbar icon (for example the clipboard tool to copy the text you just

selected). Touch the toolbar icon again to close tool options.

The tools in the toolbar vary depending on the document type.

Manage documents online

- 1 From the Home screen, touch the **Applications Launcher Key** > **ThinkFree Office**.
- 2 Touch the **Online tab** for access to your ThinkFree Office online account.
- 3 Enter your user name and password to access your account, then touch **Sign In**.
- 4 View and manage your documents on the server as desired.

Voice Search

You can search by voice and complete other voice actions, such as calling or texting a contact, sending an email, creating a note or getting directions with just a simple touch of the Voice Search icon.

- 1 From the Home screen, touch the **Applications Launcher Key** > **Voice Search**.
- 2 Wait for the "**Speak now**" prompt, then say your query.

Available commands include:

- Send text
- Navigate to
- Call
- Send email
- Map of
- Go to
- Note to self
- Directions to

3 For a "Go to" web query, the search results will be displayed in the web browser. Touch the result you want or continue searching.

Voice Dialer

You can search for and dial a contact by speaking, rather than by manually dialing a contact.

- ▶ This feature may be unavailable depending on your region.
- ▶ Your device can recognize only American English commands.
- ▶ Recognized languages may vary depending on your region.

To place a call by speaking

1 From the Home screen, touch the **Applications Launcher Key** > **Voice Dialer**.

2 Say "**Call**" or "**Dial**" followed by the name of the contact to call.

If Voice Dialer finds a match, it dials the contact's default number.

Voice recorder

Use the voice recorder to record voice memos or other audio files.

Recording a sound or voice

1 From the Home screen, touch the **Applications Launcher Key** and touch **Voice Recorder**.

2 Touch  to begin recording.

3 Touch  to end recording.

NOTE

Touch **Go to list** to access your voice recordings. You can listen to the saved recordings.

Sending the voice recording

1 Once you have finished recording, you can send the audio clip by pressing the **Menu Key** and touching **Share**.

2 Choose from **Bluetooth**, **Email**, **Gmail** and **Messaging**. When you select **Email**, **Gmail** or **Messaging**, the voice recording will be added to a message that you can write and send normally.

Using Car Home

You can use the Car Home application whether or not you have a phone car dock (the optional accessory.)

- ▶ Insert the phone into the car dock.

OR

- ▶ Touch the **Car Home** icon  in the Launch screen.

From the Car Home application, you can access Navigate, Voice Search, Music, Phone, Contacts, Map, Settings, and the Brightness settings.

Application Manager

Application Manager allows you to manage your running and downloaded applications.

To use the Application Manager:

From the Home screen, touch the

Applications Launcher Key  >

Application Manager 

- ▶ **Running Applications** Displays the total number of running applications and the amount of memory each is using up. To stop the applications that are running, select the application you wish to stop and touch **Stop selected apps**.

- ▶ **Downloaded Applications** Displays all your downloaded applications along with the total storage space and the total used storage space.

The Web

Browser

The Browser gives you a fast, full-color world of games, music, news, sports, entertainment, and much more, right on your mobile phone.

! NOTE

Additional charges apply when connecting to these services and downloading content. Check data charges with your network provider.

Using the Web browser

Your phone comes with a full HTML web browser that allows you to look at webpages similarly to how you would on a computer.

- 1 From the Home screen, touch .
- 2 Scroll up and down the screen to navigate and touch links to open them. Double-tap on the screen to zoom in; double-tap again to zoom back out.

To visit another website, touch the web address bar  at the top of the page, enter an address, and touch .

Using options

Press the **Menu Key** to view the following options:

-  **New window** – Open a new window.

-  **Bookmarks** – Displays your bookmarks and allows you to add new ones. You can also view a list of your most visited sites and your web browsing history.

-  **Windows** – Displays all your open windows.

-  **Refresh** – Touch to refresh the web page.

-  **Forward** – Used in conjunction with the Back Key. This allows you to go back and forth between web pages without opening multiple windows.

More

- **Add bookmark** – Add the current web page as bookmarks.
- **Find on page** – Use this feature to find a specific word or phrase on a web page.
- **Select text** – Allows you to copy text from the web page.
- **Page info** – Displays information for the current web page.
- **Share page** – Allows you to share the web page with your friends and family.
- **Downloads** – Displays your download history.
- **Settings** – Allows you to configure browser settings.

TIP

To return to the previous web page, press the **Back key**.

Accessing bookmarks

- 1 Press the **Menu Key** and touch **Bookmarks**.
- 2 To access the bookmark, simply touch the bookmark.

Adding bookmarks

- 1 Press the **Menu Key** and touch **Bookmarks**.
 - From **Thumbnail view**, touch **Add**, enter a name and URL, and touch **OK**.
 - From **List view**, touch **Add bookmark**, enter a name and URL, and touch **OK**.

Changing the Browser settings

Press the **Menu Key** and touch **More > Settings**.

AT&T Mobile Care



AT&T Mobile Care

AT&T Mobile Care is a free application that allows you to get up-to-date account information, add funds, and manage your account, right from your phone!

From the Home screen, simply touch the

Applications Launcher Key  >

Mobile Care . Once connected, you can view account balance information and access the following tasks:

- **Add Money:** Add money to your GoPhone account from your phone.
- **Features:** View and modify current account features.
- **More Choices:** View account summary information, call customer care, and access other account features.
- **GoPhone FAQs:** View answers to frequently asked questions about the GoPhone service.

Settings

Wireless & networks

This menu allows you to manage Wi-Fi and Bluetooth connections, portable hotspot and data tethering, airplane mode and VPN connections. To access this menu, from the Home Screen, press **Menu Key** and touch **Settings > Wireless and networks**.

Airplane mode

Airplane mode allows you to quickly turn off all wireless connections.

1 From the **Wireless & networks** screen, touch the **Airplane mode** checkbox to turn it on (a green checkmark will appear).

2 Touch again to turn it off.

OR

1 From the Home Screen, swipe the Status Bar down to open the Notifications panel.

2 Touch  to turn on Airplane mode.

3 Touch again to turn it off.

Bluetooth

Using Bluetooth

1 From the **Wireless & networks** screen, touch **Bluetooth** to turn on the Bluetooth setting.

2 Touch **Bluetooth settings > Scan for devices**.

3 Touch the name of the device you wish to pair with, and then touch **Pair** to pair and connect.

TIP

Please consult documentation included with Bluetooth device for information on pairing mode and passcode (typically 0 0 0 0 – four zeroes).

How to send data from your phone via Bluetooth

You can send data via Bluetooth by running a corresponding application, not from Bluetooth menu, unlike regular mobile phones.

* **Sending pictures:** Open the Gallery application and touch a picture. Then touch **Menu > Share > Bluetooth**. Check if Bluetooth is turned on and touch **Scan for devices**. Then touch the device you want to send data to from the list.

Settings

- * **Exporting contacts:** Open the Contacts application. Touch the contact you want to share, press the **Menu Key** and touch **Share > Bluetooth**. Check if Bluetooth is turned on and touch **Scan for devices**. Then touch the device you want to send data to from the list.
- * **Sending multi-selected contacts:** Open the Contacts application. To select more than one contact, press the **Menu Key** and touch **Multiselect**. Touch the contacts you want to send or press the **Menu Key** and touch **Select all**. Then touch **Share > Bluetooth**. Check if Bluetooth is turned on and touch **Scan for devices**. Then touch the device you want to send data to from the list.
- * **Connecting to FTP (Only the FTP server is supported on this handset):** From the Home screen, press the **Menu Key** and touch **Settings > Wireless & networks > Bluetooth settings**. Make sure Bluetooth is turned on. Touch **Discoverable** to place a checkmark and make the phone visible to other Bluetooth devices. Then search for other devices. Find the service you want and connect to the FTP server.

TIP

The supported Bluetooth version is Bluetooth 2.1 EDR and certified by Bluetooth SIG. It is compatible with other Bluetooth SIG certified devices.

- If you want to search for this phone from other devices, from the Home screen, press the **Menu Key** and touch **Settings > Wireless & networks > Bluetooth settings**. Make sure Bluetooth is turned on. Touch **Discoverable** to place a checkmark and make the phone visible to other Bluetooth devices for 120 seconds.
- Supported profiles are SDAP, HFP, HSP, OPP, PBAP (server), FTP (server), A2DP, AVRCP, and DUN.

Wi-Fi

To use Wi-Fi on your phone, you need access to a wireless access point, or "hotspot." Some access points are open and you can simply connect to them. Others are hidden or implement other security features, so you must configure your phone in order to connect to them. You get free access to AT&T Wi-Fi Hot Spots at thousands of locations across

the country with Wi-Fi, without wireless data charges.

To locate AT&T Wi-Fi hotspots nearby, open the AT&T Hot Spots application in the Application Launcher or visit www.attwifi.com

Turn on Wi-Fi

From the Home Screen, open the Notifications panel and touch  to turn Wi-Fi on.

OR

Press the **Menu Key** and touch **Settings** > **Wireless & networks** > **Wi-Fi** .

To connect to a Wi-Fi Network

Turn off Wi-Fi when you're not using it to extend the life of your battery.

To turn Wi-Fi on and connect to a Wi-Fi network

- 1 From the Home screen, press the **Menu Key** and touch **Settings** > **Wireless & networks** > **Wi-Fi settings**.
- 2 Touch **Wi-Fi** to turn it on and begin scanning for available Wi-Fi networks.

- A list of available Wi-Fi networks will be displayed. Secured networks are indicated by a lock icon.

3 Touch a network to connect to it.

- If the network is open, you are prompted to confirm that you want to connect to that network by touching **Connect**.

- If the network is secured, you are prompted to enter a password or other credentials. (Ask your network administrator for details).

4 The Status Bar at the top of your screen will display an icon that indicates your Wi-Fi status.

TIP

If you are not in range of a Wi-Fi network and use a 3G connection, additional data charges may apply.

NOTE

Access to the Internet and a wireless router required. As an added convenience, AT&T has shipped certain smartphones with Wi-Fi enabled as a default setting. Leaving Wi-Fi enabled when not connected to a Wi-Fi network may affect battery charge. Qualifying data plan required.

❗ NOTE

This device supports WEP, WPA/WPA2-PSK and 802.1x EAP. security. If your Wi-Fi service provider or network administrator sets encryption for network security, enter the key in the pop-up window. If encryption is not set, this pop-up window will not be shown. You can obtain the key from your Wi-Fi service provider or network administrator.

Data Tethering

You can use your phone to provide a data connection to a computer by activating data tethering and connecting them with a USB cable.

To tether your phone with your computer using the USB

- 1 Connect your phone to your computer with a USB cable.
- 2 From the Home screen, press the **Menu Key** and touch **Settings > Wireless & networks > Tethering & portable hotspot > USB tethering**.
- 3 A green check mark will appear, indicating that the function is activated.

❗ NOTE

- Data Tethering requires an appropriate DataPro data plan. Devices connected by tethering use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors.
- You cannot access your phone's microSD card on your computer when using USB tethering.

Mobile Hotspots

You can also use your smartphone to provide a mobile broadband connection for up to 4 other devices. Create a hotspot and share your connection.

❗ NOTE

Mobile Hotspot service is currently not available for GoPhone prepaid accounts at this time. Please check www.att.com/gophone or contact Customer Care for any changes in support of this service.

- 1 To use tethering, attach the device you want to tether to your phone with a USB cable and touch **Tethering & portable hotspot > USB tethering** in the Wireless & networks screen.

- 2 To create a portable hotspot, touch **Tethering & portable hotspot** > **Portable Wi-Fi hotspot** in the Wireless & networks screen. Set a password upon first use.

NOTE

Mobile Hotspots requires an appropriate DataPro data plan. Devices connected to your Mobile Hotspot use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors. If you do not use a password, others will be able to use your Mobile Hotspot connection.

Call settings

You can set **Fixed Dialing Numbers**, **Voicemail** and **Other call settings** including **TTY mode**, **Send Messages**, **Call forwarding**, **Call duration** and **Additional settings**.

Sound

Adjust sound, notification default settings and vibrate mode. You can also manage audible and Haptic feedback.

Haptic feedback – Vibrate when pressing soft keys and on certain user interface interactions.

Display

Brightness – Adjust the brightness of the screen.

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

Animation – Set to allow animations.

Screen timeout – Set the time delay before the screen automatically turns off.

Location & security

Use wireless networks – If you check Use wireless networks, your phone will determine your approximate location by using Wi-Fi and mobile networks. When you check this option, you're asked whether you consent to allowing Google to use your location when providing these services.

Settings

Use GPS satellites – If you check Use GPS satellites, your phone will determine your location to street-level accuracy.

Set up screen lock – Set an unlock pattern to secure your phone. Opens a set of screens that guide you through drawing a screen unlock pattern. You can set a PIN or Password instead of a Pattern or leave it as None.

When you turn on your phone or wake up the screen, you're prompted to draw your unlock pattern to unlock the screen.

Screen lock timer - Set the amount of idle time before the screen lock is enabled.

Set up Sim card lock – Set up SIM card lock or change SIM PIN.

Visible passwords – Select to show passwords as you type them or deselect to hide passwords as you type them.

Select device administrators – Add or remove administrators.

Use secure credentials – Allows you to access secure certificates

Install from SD card – Choose to install encrypted certificates from your microSD card.

Set password – Set or change the credential storage password.

Clear storage - Clear credential storage of all contents and reset its password

Using the Unlock Pattern, PIN, or Password

Set an unlock Pattern, PIN, or Password to secure your phone. To set the screen lock, follow the process below.

Press the **Menu Key**, touch **Settings** > **Location & security** > **Set up screen lock** and select between **Pattern, PIN or Password**.

⚠ Warning

Take precautions when using an Unlock Pattern, PIN, or Password. It is very important that you remember the screen unlock information you set. You are allowed 5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

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

If you logged into a Google account on the phone and failed to use the correct pattern 5 times, touch **Forgot Pattern?** You will be required to sign in with your Google account and prompted to create a new unlock pattern.

If you haven't created a Google account on the phone or you forgot your PIN or Password, you need to perform a hard reset.

⚠ Caution

If you perform a hard reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a hard reset.

- 1 Turn the power off.
- 2 Press and hold the following keys at the same time for 10 seconds: Power/Lock Key + Home Key + Up Volume Key.
- 3 When the power turns on, release the keys.

Applications

You can manage applications.

Manage Applications – Manage and remove installed applications.

Running services - Check currently running services

Development – Set options for application development.

Accounts & sync

Allows you to enable Background data, Auto-sync and synchronize or add new accounts.

Privacy

Allows you to perform a Factory data reset. Be careful as this will erase all your data.

SD card & phone storage

Allows you to check total available microSD card and internal phone storage space. You can also unmount the microSD card to safely remove it or format it.

Settings

Search

Touch **Google search** and you can adjust Google search settings.

Adjust Searchable items so you can get necessary information effectively . Choose from **Web, Apps, Contacts, Messaging Search, Music, Twitter** or **Voice Search**.

You can also clear shortcuts to recently chosen search suggestions.

Language & keyboard

Select language and customize the input method and keyboard settings.

Voice input & output

Set Voice recognizer settings and use the Text-to-Speech settings to configure the Android text-to-speech synthesiser, for applications that can take advantage of it.

Accessibility

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

❗ NOTE

Requires additional plug-ins to become selectable.

Date and time

Set date, time, time zone and date and time formats.

About phone

View legal information, and check phone status and software versions.

Software update

Phone Software update

This feature allows you to update the firmware of your phone to the latest version conveniently from the internet without the need to visit a service center.

For more information on how to use this function, please visit:

<http://update.lgmobile.com> or

<http://www.lg.com/common/index.jsp>.

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

DivX Mobile **DIVX**

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified® device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device Settings menu. Go to vod.divx.com for more information on how to complete your registration.

DivX Certified® to play DivX® video up to 320 x 240.

DivX®, DivX Certified® and associated logos are trademarks of DivX, Inc. and are used under license.

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

Q How do I view the list of outgoing calls, incoming calls and missed calls?

A Touch the **Phone** quick key and touch the **Call log** tab

Q Why is the connection inconsistent or not audible in certain areas?

A When the frequency environment is unstable in a certain area, connection may be inconsistent and inaudible. Relocate to another area and try again.

Q Why is the connection inconsistent or abruptly disconnects even when established?

A When frequency is unstable or weak, or if there are too many users, a connection may be cut off even after it was established. Please try again later or attempt again after relocating to other areas.

Q Why won't the LCD turn on?

A Remove the battery, then replace it. Then turn on the power. If there is no change, fully charge the battery and try again.

Q Why does the phone heat up?

A The phone may get hot when there is a very long call duration, when games are played or even when surfing the Internet for a long time. This has no effect upon the life of the product or performance.

Q Why does the battery run out so quickly during normal use?

A This may be due to the user environment, a large number of calls or a weak signal.

Q Why is no number dialed when an Address Book entry is recalled?

A Check that the number has been stored correctly by using the Address book Search feature. Re-store them, if necessary.

Accessories

There are a variety of accessories available for your mobile phone, some of which may be sold separately. You can select these options according to your personal communication requirements. Visit your local AT&T store or www.att.com/wirelessaccessories for specific offerings.

NOTE

- Always use genuine LG accessories. Failure to do this may invalidate your warranty.
- Accessories may be different in different regions; please check with our regional service company or agent for further enquiries.

For Your Safety

Important Information

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

Before You Start

Safety Instructions

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

Always store your phone away from heat.

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

Be careful when using your phone near other electronic devices.

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

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

Safety Information

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

- ▶ Do not disassemble this unit. Take it to a qualified service technician when repair work is required.
- ▶ Keep away from electrical appliances such as TVs, radios, and personal computers.

- ▶ The unit should be kept away from heat sources such as radiators or cookers.
- ▶ Do not drop.
- ▶ Do not subject this unit to mechanical vibration or shock.
- ▶ The coating of the phone may be damaged if covered with wrap or vinyl wrapper.
- ▶ Use dry cloth to clean the exterior of the unit. (Do not use solvent such as benzene, thinner or alcohol.)
- ▶ Do not subject this unit to excessive smoke or dust.
- ▶ Do not keep the phone next to credit cards or transport tickets; it can affect the information on the magnetic strips.
- ▶ Do not touch the screen with a sharp object; otherwise, it may damage the phone.
- ▶ Do not expose the phone to liquid or moisture.
- ▶ Use the accessories like an earphone cautiously. Do not touch the antenna unnecessarily.

microSD card information and care

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

FCC RF Exposure Information

WARNING! Read this information before operating the phone.

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

For Your Safety

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

CAUTION

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

Body-worn Operation

This device was tested for typical body-worn operations with the back of the phone kept 0.79 inches (2cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.79 inches (2cm) must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 0.79 inches (2cm) separation distance between the user's body and the back of the phone,

and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

FCC Part 15 Class B Compliance

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

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.

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.
- ▶ Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.
- ▶ Promptly dispose of used batteries in accordance with local regulations.
- ▶ Battery usage by children should be supervised.

For Your Safety

- ▶ 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.

Adapter (Charger) Cautions

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

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

Avoid damage to your hearing

- ▶ Damage to your hearing can occur if you are exposed to loud sound for long periods of time. We therefore recommend that you do not turn on or off the handset close to your ear. We also recommend that music and call volumes are set to a reasonable level.
- ▶ If you are listening to music while out and about, please ensure that the volume is at a reasonable level so that you are aware of your surroundings. This is particularly imperative when attempting to cross the street.

Safety Guidelines

TIA Safety Information

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

Exposure to Radio Frequency Signal

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

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

ANSI C95.1 (1992) *

NCRP Report 86 (1986)

ICNIRP (1996)

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

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

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

Antenna Care

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

Phone Operation

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

Tips on Efficient Operation

For your phone to operate most efficiently:

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

Driving

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

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

Electronic Devices

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

Pacemakers

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

Persons with pacemakers:

- ▶ Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON;
- ▶ Should not carry the phone in a breast pocket.
- ▶ Should use the ear opposite the pacemaker to minimize the potential for interference.
- ▶ If you have any reason to suspect that interference is taking place, turn your phone OFF immediately.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult AT&T.

Other Medical Devices

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

Health Care Facilities

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

Vehicles

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

Posted Facilities

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

Aircraft

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

Blasting Areas

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

Potentially Explosive Atmosphere

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

Safety Guidelines

Areas with a potentially explosive atmosphere are often, but not always, marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

For Vehicles Equipped with an Air Bag

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

Charger and Adapter Safety

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

Battery Information and Care

- ▶ Please dispose of your battery properly or take it to your local wireless carrier for recycling.
- ▶ The battery does not need to be fully discharged before recharging.
- ▶ Use only LG-approved chargers specific to your phone model since they are designed to maximize battery life.
- ▶ Do not disassemble or impact the battery as it may cause electric shock, short-circuit, and fire. Store the battery in a place out of reach of children.
- ▶ Keep the battery's metal contacts clean.
- ▶ Replace the battery when it no longer provides acceptable performance. The battery can be recharged several hundred times before replacement.
- ▶ Recharge the battery after long periods of non-use to maximize battery life.
- ▶ Battery life will vary due to usage patterns and environmental conditions.
- ▶ Use of extended backlighting, MEdia Net Browsing, and data connectivity kits affect battery life and talk/standby times.

- ▶ The self-protection function of the battery cuts the power of the phone when its operation is in an abnormal state. In this case, remove the battery from the phone, reinstall it, and turn the phone on.
- ▶ Actual battery life will depend on network configuration, product settings, usage patterns, battery and environmental conditions.

Explosion, Shock, and Fire Hazards

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

- ▶ If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- ▶ Do not short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and – terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

General Notice

- ▶ Using a damaged battery or placing a battery in your mouth may cause serious injury.
- ▶ Do not place items containing magnetic components such as a credit card, phone card, bank book or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.

Safety Guidelines

- ▶ Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- ▶ When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- ▶ Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- ▶ Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.
- ▶ Do not immerse your phone in water. If this happens, turn it off immediately and remove the battery. If the phone does not work, take it to an LG Authorized Service Center.
- ▶ Do not paint your phone.
- ▶ The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ring tones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- ▶ When you use the phone in public places, set the ring tone to vibration so as not to disturb others.
- ▶ Do not turn your phone on or off when putting it in your ear.

FDA Consumer Update

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

1. Do wireless phones pose a health hazard?

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

in determining the reasons for inconsistent results.

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

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

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

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;

Safety Guidelines

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

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

- ▶ National Institute for Occupational Safety and Health
- ▶ Environmental Protection Agency
- ▶ Occupational Safety and Health Administration (Administración de la seguridad y salud laborales)
- ▶ Occupational Safety and Health Administration
- ▶ National Telecommunications and Information Administration

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

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

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

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

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

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

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

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in

laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

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

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do- may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

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

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF). The FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues. The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded

research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much radio frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radio frequency energy (RF) exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability

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

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

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

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

9. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products - and at this point we do not know that there is - it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If

you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

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

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

11. What about wireless phone interference with medical equipment?

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

2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a 'compatible' phone and a 'compatible' hearing aid at the same time. This standard was approved by the IEEE in 2000. The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones (<http://www.fda.gov>, click on "C" in the index and "Cell Phones")

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Federal Communications Commission (FCC)
RF Safety Program

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

International Commission on Non-Ionizing
Radiation Protection

(<http://www.icnirp.de>)

World Health Organization (WHO)

International EMF Project

(<http://www.who.int/emf>)

National Radiological Protection Board (UK)

(<http://www.nrpb.org.uk/radiation/>)

10 Driver Safety Tips

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

When operating a car, driving is your first responsibility.

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

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

most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Do not take notes or look up phone numbers while driving. If you are reading an Address Book or business card, or writing a “to-do” list while driving a car, you are not watching where you are going. It is common sense. Don’t get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip—dial only a few numbers, check the road and your mirrors, then continue.
7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations — with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

Safety Guidelines

9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a “Good Samaritan” in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.
10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle. You know to be stolen, call roadside assistance or other special non-emergency wireless number.

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

Consumer Information on SAR (Specific Absorption Rate)

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

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

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR.

The SAR limit set by the FCC is 1.6 W/kg.*

Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands.

Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this phone when tested for use at the ear is 1.23 W/kg and when worn on the body, as described in this user's manual, is 0.43 W/

kg. (Body-worn measurements differ among phones models, depending upon available accessories and FCC requirements.) While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID BEJP506.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org>

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