

LG Banter Quick Reference Guide

Some of content in this user guide may be different from your phone depending on the software of the phone or your service provider. Features and specifications might be subject to change without prior notice.



Bluetooth QD ID B014981

Visit http://ca.lgservice.com/index_b2c.jsp for the User Guide fully illustrated on how to use your phone.

P/N: MSAB0030501 (1.0)

Getting Started With Your Phone

Installing the Battery

1. Remove the battery cover by sliding it upward. Align the battery with the terminals near the bottom of the phone. Align the battery cover then slide it downward until it clicks into place.



Removing the Battery

1. Turn off the phone, then push the battery cover from down to up as shown below.
2. While holding the battery cover, lift and remove the battery cover.
3. Lift the top of the battery out using the fingertip cutout, then remove it.

Charging the Battery

Warning!

Use only the charger provided with the phone. Using any charger other than the one included with the LG Banter may damage your phone or battery.

1. Plug the end of the adapter into the phone's charger port and the other end into an electrical outlet.
2. The charge time varies depending upon the battery level.



Notice

Please make sure that the LG logo faces down before inserting a charger or data cable into the charger port of your phone.

Phone Overview



Receiving Calls

1. When the phone rings or vibrates press **[Call]** to answer a call.

Note

If you press **[Call]** or **[Mute]** the side keys while the phone is ringing, the ringing or vibration is muted for that call.

2. Press **[End Call]** to end the call.

Bluetooth®

The LG Banter is compatible with devices that support the Bluetooth® headset and hands-free profile(s). You may create and store 20 pairings within the LG Banter and connect to one device at a time. The approximate communication range for Bluetooth® wireless technology is up to 30 feet (10 meters).

Notes

- Read user guide of each Bluetooth accessory that you are trying to pair with your phone as instructions may differ.
- The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by LG Electronics is under license. Other trademarks and trade names are those of their respective owners.
- Your phone is based on the Bluetooth® specification, but it is not guaranteed to work with all devices enabled with Bluetooth® wireless technology.

Entering Text With the QWERTY® Keyboard

Your phone features a slide-out QWERTY keyboard, specifically designed for easy and comfortable text entry. The QWERTY keyboard uses the same layout and works just like the keyboard on your computer. The easiest way to enter text is using your thumbs to type on the QWERTY keyboard.



To enter text with the QWERTY keyboard:

1. In a text entry screen, slide open the QWERTY keyboard. (The display automatically adjusts to landscape mode.)
2. Use your thumbs to enter text.
 - To change capitalization, press **[Shift]**.
 - To enter alternate characters on a key, press **[Fn]** and then press the key. To lock the function key (as when entering a series of numbers), press **[Fn]** twice.
 - To enter symbols, press **[Fn]** and select a symbol.
 - For additional text entry options, including Symbols and 123, press Left Soft Key and select an option.

Music

LG Banter comes equipped with a Music Player with many features. This Menu also allows you to transfer songs stored in your memory card. For the availability of this feature, there should be stored music in your memory card.

1. All Songs (**[All Songs]**, **[5]**, **[1]**)

Use **[Left Soft Key]** to select the music file and press **[Play]** to play or the Right Soft Key **[Options]**:

Add to Playlist/ Delete/ Information/ Delete Multiple (Selective/ All) or (When playing music)

Repeat (Repeat Off/ Repeat One/ Repeat All)
Shuffle (On/ Off)

2. Playlists (**[Playlists]**, **[5]**, **[1]**, **[2]**)

Allows you to create and listen to Playlists.

Press the Left Soft Key **[New]** to create a new playlist or press Right Soft Key **[Options]** for the following options:
Create Playlist/ Import M3U file

3. Recently Played (**[Recently Played]**, **[5]**, **[1]**, **[3]**)

Allows you to view the most recently played songs.

Use **[Left Soft Key]** to highlight the recently played songs. Then press **[Play]** to play or the Right Soft Key **[Clear]** to clear the list.

4. Artists (**[Artists]**, **[5]**, **[1]**, **[4]**)

Allows you to view and listen to your music by Artists.

Use **[Left Soft Key]** to select the artist to view and press **[Play]** to view the songs in your collection by that Artist.

5. Genres (**[Genres]**, **[5]**, **[1]**, **[5]**)

Allows you to view the most recently played songs.

Use **[Left Soft Key]** to select the Genre to view and press **[Play]**.

6. Albums (**[Albums]**, **[5]**, **[1]**, **[6]**)

Allows you to view the most recently played songs.

Use **[Left Soft Key]** to select the Album and press **[Play]** to view the songs from that Album.

Turning the Phone On and Off

Turning the Phone On

1. Install a charged battery or connect the phone to an external power source.
2. Press **[Power]** for a few seconds until the LCD screen lights up.

Turning the Phone Off

1. Press and hold **[Power]** until the display turns off.

Making Calls

1. Make sure the phone is turned on. If not, press **[Power]** for about 3 seconds.
2. Enter the phone number (include the area code if needed).
3. Press **[Call]**. If the phone is locked, enter the lock code.

Notes

- By default, the lock code/password is the last 4 digits of your phone number. You can change this code/password in Security menu.
- If the phone is restricted, you can only dial phone numbers saved in the Emergency Numbers or your Contacts. To turn off this function: **[Security] -> Settings -> Security -> Enter Lock Code -> [OK] -> Restrictions -> Enter Lock Code -> [OK] -> Outgoing Calls -> Allow All -> [OK]**
- Press **[End Call]** to end the call.

Menus Overview

- | | | |
|--|--|--|
| <p>1. Contacts</p> <ol style="list-style-type: none"> 1. New Contact 2. Contact List 3. Groups 4. Speed Dials 5. My Name Card | <p>4. Wireless Web</p> <ol style="list-style-type: none"> 1. Launch Web 2. Bookmarks 3. Go to Site | <ol style="list-style-type: none"> 4. My Menu 5. Alarm Clock 6. Calendar 7. Ez Tip Calc 8. Notepad 9. Calculator 0. World Clock *. Stopwatch #. Unit Converter |
| <p>2. Call History</p> <ol style="list-style-type: none"> 1. Missed Calls 2. Received Calls 3. Dialed Calls 4. All Calls 5. View Call Timers | <p>5. Music & Media</p> <ol style="list-style-type: none"> 1. Music 2. Camera 3. Pictures 4. Ringtones & Sounds 5. Memory Info | <p>9. Settings</p> <ol style="list-style-type: none"> 1. Sound Settings 2. Display Settings 3. Keypad Timer 4. Security 5. Call Settings 6. PC Connection 7. System 8. Memory 9. Games & Apps 0. Phone Info |
| <p>3. Messaging</p> <ol style="list-style-type: none"> 1. Voicemail 2. Create Message 3. Inbox 4. E-mail 5. Instant Messaging 6. Sent 7. Drafts 8. Web Alerts 9. Short Codes | <p>6. Search</p> <ol style="list-style-type: none"> 1. Search the Web 2. Find Ringtones & Wallpapers | |
| | <p>7. Games & Apps</p> <ol style="list-style-type: none"> 1. Games 2. Apps | |
| | <p>8. Tools</p> <ol style="list-style-type: none"> 1. Bluetooth Menu 2. Voice Recorder 3. Voice Command | |

Menu Access

To use phone menus, press **[Navigation Key]** using Navigation Key to highlight and select. Press the number key that corresponds to the submenu.

How to Use Menus

This section provides a quick glance of features on your phone.

Contacts Menu 1

The Contacts Menu allows you to store names, phone numbers and other information in your phone's memory.

New Contact/ Contact List/ Groups/ Speed Dials/ My Name Card

Call History Menu 2

The Call History Menu is a list of the last phone numbers or Contact entries for calls you placed, accepted, or missed. It's continually updated as new numbers are added to the beginning of the list and the oldest entries are removed from the bottom of the list.

Missed Calls/ Received Calls/ Dialed Calls/ All Calls/ View Call Timers

Messaging Menu 3

Voicemail Allows you to view the number of new voice messages recorded in the Voicemail box. Once you exceed the storage limit, old messages are overwritten. When you have a new voice message, your phone will alert you.

Create Message Allows you to send messages (Text, Picture, Video, and Voice). Each message has a destination (Address) and information (Message). These are dependent upon the type of message you want to send. You can also attach files to your messages including pictures, videos, sounds, and name cards.

Inbox The phone alerts you in 3 ways when you receive a Message.

E-mail Allows you to send an email via Mobile Web.

Instant Messaging Allows you to send and receive an Instant Message at any time.

Sent Depending on the content and size of your messages, you can save up to 200 Sent messages. This menu lists your Sent messages. Use it to verify whether the transmission was successful or not and view message contents.

Drafts Displays draft messages.

Web Alerts

Short Codes Using shortcode, the user can get useful information such as weather, news and jokes via SMS.

Wireless Web Menu 4

The Wireless Web feature allows you to view Internet content, especially designed for your mobile phone. Access and selections within this feature are dependent upon your service provider. For specific information on Wireless Web access through your phone, contact your service provider.

- Browse and search the World Wide Web via web pages especially designed for wireless phone customers.
- Set bookmarks to directly access your favorite sites.
- Retrieve information, such as stock quotes and flight schedules from the Internet.

Music & Media Menu 5

Music & media allows you to do more than just talk on your phone. Music & media is a technology and service that allows you to download and use applications on your phone. With Music & media, it's quick and easy to personalize your phone to your lifestyle and tastes. Just download the applications that appeal to you. With a wide range of software available, you can be assured that you can find something useful, practical, or entertaining.

Music/ Camera/ Pictures/ Ringtones & Sounds/ Memory Info

Search Menu 6

Allows you to search and purchase from a variety of content provided by your service provider.

Search the Web/ Find Ringtones & Wallpapers

Games & Apps Menu 7

Allows you to download games and applications from the Music & media server. Choose the software you want from the list displayed on the screen.

Tool Menu 8

Bluetooth Menu/ Voice Recorder/ Voice Command/ My Menu/ Alarm Clock/ Ez Tip Calc/ Notepad/ Calculator/ World Clock/ Stopwatch/ Unit Converter

Settings Menu 9

The Settings Menu has options to customize your phone.

Sound Settings/ Display Settings/ Keypad Timer*/ Security/ Call Settings/ PC Connection**/ System/ Memory/ Games & Apps/ Phone Info

* The Auto Keypad setting applies only when the flip is closed.

** When you connect your phone to a PC with USB cable, the phone screen displays USB Menu allowing you to enter Mass Storage, Phone As Modem or Print.

Important Safety Precautions and Warranty Information

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

WARNING! Violation of the instructions may cause serious injury or death.



- Never use an unapproved battery since this could damage the phone and/or battery and could cause the battery to explode.



- Never place your phone in a microwave oven as it will cause the battery to explode.

- Never store your phone in temperatures less than -4°F or greater than 122°F.

- Do not dispose of your battery by fire or with hazardous or flammable materials.



- When riding in a car, do not leave your phone or set up the hands-free kit near to the air bag. If wireless equipment is improperly installed and the air bag is deployed, you may be seriously injured.

- Do not use a hand-held phone while driving.



- Do not use the phone in areas where its use is prohibited. (For example: aircraft, hospital)



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



- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. This could cause a fire.



- Do not drop, strike, or shake your phone severely. It may harm the internal circuit boards of the phone.



- Do not use your phone in high explosive areas as the phone may generate sparks.



- Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause a fire or electric shock.



- Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.



- Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.



- Do not disassemble the phone.



- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.



- Do not hold or let the antenna come in contact with your body during a call.



- Make sure that no sharp-edged items such as animal's teeth or nails, come into contact with the battery. This could cause a fire.



- Store the battery out of reach of children.



- Be careful that children do not swallow any parts. This could cause asphyxiation or suffocation resulting in serious injury or death.



- Unplug the power cord and charger during lightning storms to avoid electric shock or fire.



- Only use the batteries and chargers provided by LG. The warranty will not be applied to products provided by other suppliers.



- Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.



- Your service provider programs one or more emergency phone numbers, such as 911, that you can call under any circumstances, even when your phone is locked. Your phone's preprogrammed emergency number(s) may not work in all locations, and sometimes an emergency call cannot be placed due to network, environmental, or interference issues.

Safety (Continued)

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

Blasting Areas

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

Potentially Explosive Atmosphere

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

For Vehicles Equipped with an Air Bag

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

Charger and Adapter Safety

- The charger and adapter are intended for indoor use only.
- Do not expose the battery charger or adapter to direct sunlight or use it in places with high humidity, such as a bathroom.

Battery Information and Care

- Please dispose of your battery properly or take it to your local wireless carrier for recycling.
- Do not dispose of your battery by fire or with hazardous or flammable materials.

Safety (Continued)

- Never use an unapproved battery since this could damage the phone and/or battery and could cause the battery to explode.
- 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 shortcircuit the battery.
- 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, MiniBrowser, and data connectivity kits affect battery life and talk/standby times.

Safety Information

Please read and observe the following information for safe and proper use of your phone and to prevent damage. Also, keep the user's guide in an accessible place at all times after reading it.

Explosion, Shock, and Fire Hazards

- Unplug the power cord and charger during lightning storms to avoid electric shock or fire.
- Make sure that no sharp-edged items such as animal's teeth, nails, come into contact with the battery. There is a risk of this causing a fire.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. There is a risk of this causing a fire.
- Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.
- Do not drop, strike, or shake your phone severely. Such actions may harm the internal circuit boards of the phone.
- 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.
- Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause a fire or electric shock.
- When using the power plug, ensure that it is firmly connected. If it is not, it may cause excessive heat or fire.
- Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause fire or electric shock.

Safety (Continued)

Warning! Important Safety Information

- Do not disassemble the phone.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.
- 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.
- Never place your phone in a microwave oven as it will cause the battery to explode.

General Warnings and Cautions

- Only use the batteries, antennas, and chargers provided by LG. The warranty will not be applied to products provided by other suppliers.
- Store the battery in a place out of reach of children.
- 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.
- Do not hold or let the antenna come in contact with your body during a call.
- 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.
- Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.
- 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 use the phone in areas where its use is prohibited. (For example: aircraft)
- 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.
- Use accessories, such as earphones and headsets, with caution. Ensure that cables are locked away safely and do not touch the antenna unnecessarily.

Warning! Important Safety Information

Avoiding hearing damage
Permanent hearing loss may occur if you use your phone and/or headset at a high volume. Set the volume to a safe level. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected. Hearing experts suggest that to protect your hearing:

- Limit the amount of time you use your phone and/or headset at high volume.
- Avoid turning up the volume to block out noisy surroundings.
- Turn the volume down if you can't hear people speaking near you. For information about how to set a maximum volume limit on your phone, see the features guide for your phone.

Using your phone safely

Use of your phone while operating a vehicle is not recommended and is illegal in some areas. Be careful and attentive while driving. Stop using your phone if you find it disruptive or distracting while operating any type of vehicle or performing any other activity that requires your full attention.

FDA Consumer Update

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

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the Main Menu 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-emit-

ting 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.
 - Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.
- The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:
- National Institute for Occupational Safety and Health
 - Environmental Protection Agency
 - Occupational Safety and Health Administration
 - National Telecommunications and Information Administration
- The National Institutes of Health participates in some interagency working group activities, as well. The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones. The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?
The term "wireless phone" refers here to handheld wireless phones with built-in antennas, often called "cell," "mobile," or "PCS" phones. These types of wireless phones can expose the user to measurable 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 com-

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 causes undesired operation.

Industry Canada Compliance

This phone complies with Industry Canada RSS 133. This phone complies with the Class B limits for radio noise emissions as set out in the interference causing standard entitled "Digital Apparatus" (ICES-003) of Industry Canada.

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

Bodily Contact During Operation

This device was tested for typical use with the back of the phone kept 0.6 inches (1.5 cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.6 inches (1.5 cm) must be maintained between the user's body and the back of the phone, including the antenna, whether extended or retracted. Third-party belt-clips, holsters and similar accessories containing metallic components should not be used. Avoid the use of accessories that cannot maintain 0.6 inches (1.5 cm) distance between the user's body and the back of the phone and have not been tested for compliance with FCC RF exposure limits.

Vehicle-Mounted External Antenna (Optional, if available.)

A minimum separation distance of 8 inches (20 cm) must be maintained between the user / bystander and the vehicle-mounted external antenna to satisfy FCC RF exposure requirements. For more information about RF exposure, visit the FCC website at www.fcc.gov.

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 in contact with the skin a minor burn may result. Contact your local dealer for a replacement antenna.

Safety (Continued)

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

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

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

The National Institutes of Health participates in some interagency working group activities, as well. The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones. The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

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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 com-

pleted 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 radio frequency 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

Safety

TIA (Telecommunications Industry Association) Safety Information
The following is the complete TIA Safety Information for wireless handheld phones.

Exposure to Radio Frequency Signal

Your wireless handheld portable phone is a low power radio transmitter and receiver. When 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)
- Health Canada, Safety Code 6, 1999.

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1). The design of your phone complies with the FCC guidelines, IC Regulations (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 ireless phones in the areas where you drive and always obey them. Also, if using your phone while

driving, please observe the following:

- Give full attention to driving — driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions or the law 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 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;
- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

Hearing Aids

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

Other Medical Devices

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

Health Care Facilities

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

Safety (Continued)

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

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

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

The National Institutes of Health participates in some interagency working group activities, as well. The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones. The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

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

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Notes:

- 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 merchantability or fitness for a particular purpose.
- Shipping damage is the sole responsibility of the shipping company.

3. EXCLUSION OF LIABILITY: