

FCC Document for SPH-A310

User Manual

SAMSUNG ELECTRONICS CO, LTD

9. User Manual

- * Depending on the software installed or your service provider, some of the descriptions in this manual may not match from your phone.
- * Depending on your country, your phone and accessories may appear different from the illustrations in this manual.

SAMSUNG ELECTRONICS



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SPH-A310
User's Guide
For Draft Version

Dial Features

This section describes the **Basic Features** of your Jitterbug™ Dial phone and how to use them.

Topics Covered

- List of Key Features
- Closed View (Front and Back)
- Open View of Your Phone
- Your Display Screen
- Your Phone Settings
 - Adjust Ringer Volume
 - Speakerphone
 - Emergency Callback






FACT

The first cellular phone weighed 40 ounces.
Your Jitterbug Dial weighs only 4.5 ounces.

For more information or to see the latest products and services visit us online at www.myjitterbug.com

Key Features

Your Jitterbug phone was designed to be easy to use and helpful.

- Easy to use , ,  buttons
- Soft ear cushion reduces outside noise so sound is loud and clear.
- Bright screen with large easy to read text.
- Big, backlit buttons.
- Scrolling button for searching through your Phone List.

Your Jitterbug includes the following standard services:

Phone List Up to 50 of the numbers you call most often stored right in your phone. Our operators can even set up the Phone List for you. See Section 5 (pg 47) for more details.

Call History An easy way to review your last ten incoming, outgoing and missed calls.

Jitterbug Operator Greets you by name, makes calls for you and assists when you need it most. (per minute surcharge may apply).

Emergency call back service Just in case you ever need it.

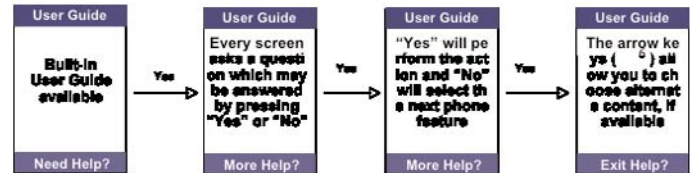
The following **OPTIONAL SERVICES** can be turned on or off at your request:

Voice Dialing Speak a name exactly as it appears in your Phone List and your Jitterbug will connect you right away.

Phone List Updating Select simple or advanced ways to change and save numbers.

Vicemail Makes it easy to retrieve any missed messages (service fees and airtime may apply).

How to Guide Provides simple instruction on navigating Jitterbug features.



For help with any of the above optional features, please call the Jitterbug operator for assistance anytime 24 hours a day.

Jitterbug Menu Navigation

We designed Jitterbug with the easiest to use menu system ever found on a cellular phone. And you can do it all by with three simple buttons located at the top of the keypad.



Press up or down to scroll quickly through a list of features. Each menu option is asked in the form of a question.



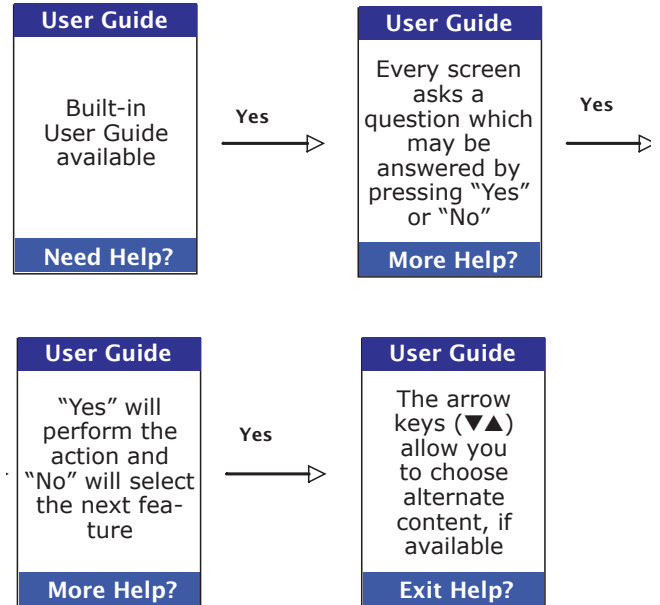
Press to choose the feature or item displayed on your screen.



Press to continue to the next feature or item.

User Guide

Try it out yourself! Take a look at this built-in guide for an easy, interactive tutorial about your new Jitterbug.



Closed View of Your Phone (Front)

- 1. Internal Antenna** Connects with the cellular network so you can use your phone.
- 2. Display Window** Shows time, day and date (when your phone is on). Indicates when you have an incoming call or message.
- 3. Volume Button** Adjusts the ringer or the voice volume during a call. (To silence the ringer during an incoming call, tap the volume button.)
- 4. Accessory Connector** Links accessories to your phone.
- 5. Power Connector** Connects the AC Power Charger to your phone.
- 6. Light Alert** The area around the volume button will illuminate for various indications.

ON STEADY (Phone not plugged in) Phone turned on.

CONSTANT FLASH (Phone not plugged in) Phone needs recharging

SHORT FLASH (Phone not plugged in) Incoming call or message



ON BRIEFLY (Phone plugged in) Charging has begun

ON STEADY (Phone plugged in) Charging complete

Closed View of Your Phone (Back)

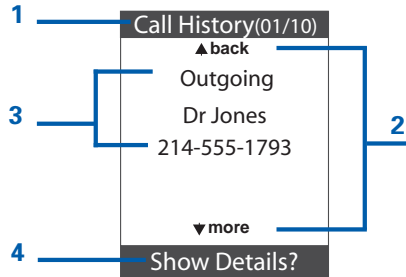
1. **Battery** Delivers power to make your phone function.
2. **Battery Latch** Slides to open for battery removal.
3. **Lanyard Connector** Makes it easy to attach a hand-strap to carry your phone.

Open View of Your Phone

- 1. Speaker** Hear the caller and other phone sounds.
- 2. Display Screen** Shows all the information you need to operate your phone.
- 3. Up/Back Arrow Button** Return to previous screen on your **Phone List** or **Call History**
- 4.  and  Buttons** Responds to questions or commands on the screen.
- 5. Down/More Arrow Button** Advance to next screen on your **Phone List** or **Call History** list.
- 6. Accessory Connector** Accessories such as a hands-free car kit connect into your phone here.
- 7. Power Connector** AC Power Charger and Car Power Charger connect here to recharge your phone.
- 8. Microphone** Picks up the sound of your voice for calls and voice calling.
- 9. Power Button** Turns your phone on and off.
- 10. Softcell Ear Pad** Fits comfortably around your ear while reducing unwanted noise.

Display Screen

This is what you may see on the screen while using your Jitterbug.



1. Feature Area Identifies the feature you are using.

2. Additional Entries Indicates when entries are available before or after the current page. Use the Up/Down arrow buttons to scroll through entries.

- **“Back”** Entries available before the current page.
- **“More”** Entries available after the current page.

3. Detail Area Displays individual entries from your Phone List, phone call status and received messages in adjustable type size (shorter messages appear in larger type).

4. Command Area Displays questions or commands you can choose or bypass by pressing YES or NO .



Remember to read the Command Area line and respond by using the YES or NO buttons.

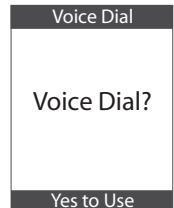
Your Phone Settings

When you turn your phone on, it automatically connects to the cellular service to be ready for calls.

You can place and receive calls **only** when your phone is **on**.

By calling Customer Service or the Jitterbug operator, you can turn the following settings on or off:

- Voice Dial
- Call History
- Built-In User Guide



If, for example, you turn on Voice Dial, that's the first feature you will see when you open your phone.

Adjusting the ringer volume

1. Open your phone and confirm it's turned on.
2. Press the **Up/Down** volume button on the outside of the phone below the display window. Each press will cycle through the below options.
 - Ringer Volume Ring Max
 - Ringer Volume High
 - Ringer Volume Med
 - Ringer Volume Low
 - Ringer Volume Silent



The ringer and keypad can be silenced by pressing the volume button **Down** until "**Silent**" appears on the screen.

Your Jitterbug will now only vibrate to alert you to incoming calls (This can come in handy at a movie, a library or any other location where a ringer may be a distraction.)

Adjusting the ear piece volume

When you're on a call, press the Volume button up or down until the sound reaches a comfortable volume.

Speakerphone

Use the **Speakerphone** setting to conduct a call without holding the phone to your ear (and allow others to participate in your phone call).




Don't hold the phone up to your ear when it's in Speakerphone mode. The volume will be too loud and may harm your ear.



You must be on a call to use this setting.

Using the Speakerphone:

1. When you have made or answered a call, you will see a "**Connected to...**" message on the screen, as shown.
2. Press the Volume button **Up** repeatedly until you see "**Press Yes for SPKR Phone,**" as shown.
3. Press the  button.

Exiting Speakerphone Mode:

While you're on a call, press the volume button **Down** to turn this feature off.



Your phone automatically exits the **Speakerphone** setting when you end a call.

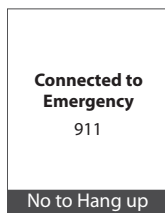
Emergency Callback Mode

When you dial **9-1-1**, your phone automatically enters **Emergency Callback** mode for 30 minutes. While in this mode, you cannot make other calls.


Making an Emergency Call:


1. Dial the numbers **9-1-1**. **“Calling Emergency”** appears on the screen.

2. When the **911 operator** answers, **“Connected to Emergency”** appears on the screen, as shown.



Ending an Emergency Call:

1. If the **“No to Hang up”** command is showing at the bottom of the screen, press .

2. Your **Emergency Callback** setting is now active. To reconnect to the **911 operator**, press the  button.

You will know that you are in the **Emergency Callback** mode when you open your phone and see **“Emergency Callback”** on the screen.


Exiting “Emergency Callback” Mode:

You must remove your battery to exit the emergency callback setting. See page 8 for information about removing a battery.

Why do I have an Emergency Callback setting?

If you dial **9-1-1**, your mobile phone line is kept free so that the **911 operator** can call you back or stay on the line with you.



If you mistakenly call **9-1-1**, end the call as soon as possible by pressing  to **Hang up** or close your phone.

FACT

Every day in the U.S., more than 200,000 wireless calls are made to 911.

The Basics

This section explains how to use your phone's **Calling** and **Answering** features.

Topics Covered

- Answering a Call
- Ending a Call
- Ignoring a Call
- Placing a Call
 - Dialing Manually
 - Calling the Jitterbug Operator
 - Non-Phone List Numbers
 - Phone List Numbers

FACT

More than 196 million Americans subscribe to a wireless service.

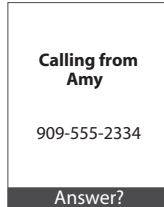
For more information or to see the latest products and services visit us online at www.myjitterbug.com

When someone calls you

Your phone rings or vibrates (depending on how you set the volume level) to indicate an incoming call. Additionally there are other indications of incoming calls:

If your phone is open:

- A phone number or name appears if the caller's name and number are stored on your Phone List.
- If the caller can't be identified, you will see one of the following messages:
 - Call from unavailable number
 - Call from restricted number
 - No number



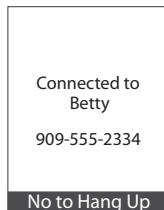
If your phone is closed:

- The volume button on the front of your phone flashes.
- A phone number or name appears in the display window, as shown.



Answering a call if the phone is open:

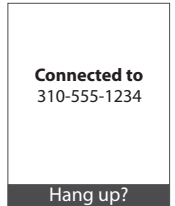
1. Press the  button.




2. A "Connected To..." message will appear on the screen. The caller's voice can be heard through the earpiece.

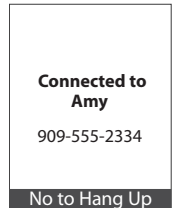
Answering a call if the phone is closed:

1. Open the phone. The ring tone will stop.
2. A "Connected To..." message will appear on the screen. The caller's voice can be heard.



Ending a call:

1. During calls, the "No to Hang Up" command appears at the bottom of the screen.
2. To end a call, press the  button or close the phone.




Ignoring a call when the phone is closed:

When the phone is ringing you can press the volume button to mute the ringer and ignore the call.

If Voicemail is not active, callers will get a message that you are not available.

Ignoring a call when the phone is open:

You can send a caller directly to your Voicemail by pressing the  button when you see **“Answer?”** at the bottom of the screen. This will also give an unavailable message if you do not have voicemail.



Your phone continues to ring until:

- You answer the call.
- The calling party ends the call.
- You mute the ringer.
- The call is sent to Voicemail.

Silencing a Call



Turn the ringer off by opening the phone and pressing the volume button until **“Silent”** appears on the screen. Your phone will vibrate to alert you to incoming calls.



Placing a Call

Dialing Manually:

You can directly dial a number from any screen on your phone.

1. Dial the full ten digit number using your keypad.
2. Press the  button when you see **“Call?”** at the bottom of your screen.
3. If you make a mistake while entering the number, pressing the  key works like a backspace or delete button.




A dial tone means service is available. If it's not, you'll see **“No Service.”**



Always dial the full ten digit number including area code (except 911) even if it's a local call.

Calling via the Jitterbug Operator:

The Jitterbug Operator can connect you to anyone on your Phone List or to any number in the United States or Canada.

1. Press the “O” button.
2. Press the  button when you see “Call?” at the bottom of the screen. “Calling” will appear.
3. When the operator answers, “Connected” will appear.
4. Tell the operator the name of the person or service you want to call.



You can end any call or exit any screen by closing, then re-opening your phone.



Calling Non-Phone List Numbers

To call numbers that are not stored on your **Phone List** or **Call History** list, you can dial the number yourself or ask the operator to call for you in the U.S. or Canada.

For security, you may be asked for a Personal ID Number (PIN) if you have set one up at www.myjitterbug.com.

Using your Phone List to make a Call

Your Jitterbug Dial phone can store up to 50 numbers and contact names on your Phone List. To place a call to a number on the list:

1. Press the  button until a Phone List screen appears.
2. Press the **Up/Down** arrow button to move back and forward through your Phone List until you find the number you want to call.
3. Press  when you see the “Call?” question at the bottom of your screen.



You can control the order of the numbers on your Phone List from your personal page at www.myjitterbug.com

Moving from Feature to Feature on Your Phone

This section explains **how to move** in and out of the features on your phone.



Topics Covered

- Accessing Features
- Examples of Feature Navigation

Accessing Features

It's easy to find what you want on your Jitterbug Dial.

How to navigate using buttons:

1. Press the  button to browse through the feature choices on your phone.
2. Press the Up/Down arrow button to move through the entries within a feature.
3. Press the  button to select the action displayed at the bottom of the screen.

Follow these steps as you look at the screen images in the examples on the next page.

Feature Navigation

All Jitterbug phones include a pre-programmed Phone List. (See Section 5 for details about your Phone List.) Additional features, such as built in **User Guide**, **Voice Dialing**, **Voicemail**, **Call History**, and **Phone Info**, can be turned on or off by calling [1-800-733-6632](tel:1-800-733-6632).

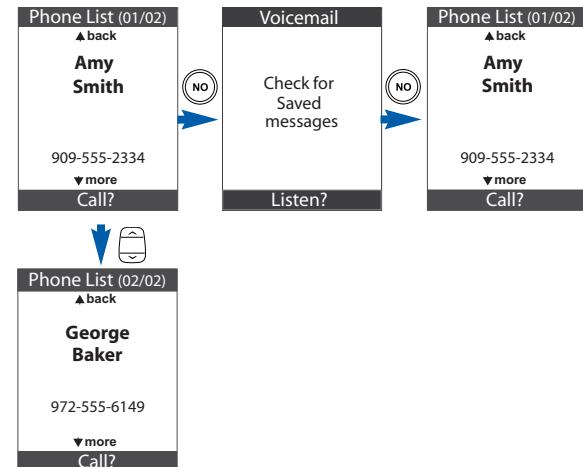
Features on your Jitterbug are accessible in the following order:

1. User Guide
2. Voice dialing
3. Phone List
4. Call History
5. Phone Info

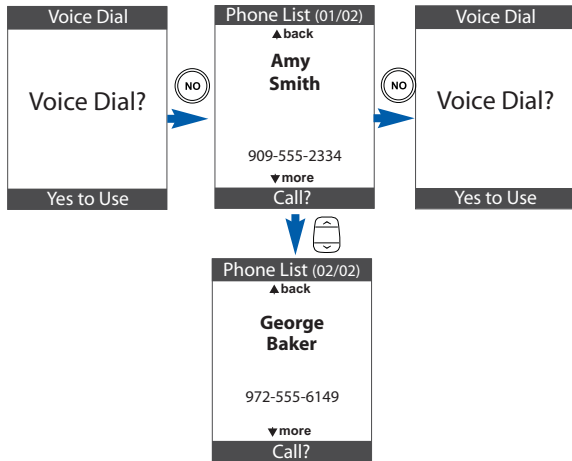
Examples of the screens you'll see when navigating through features are included below.

Feature 1. Phone List with voicemail.

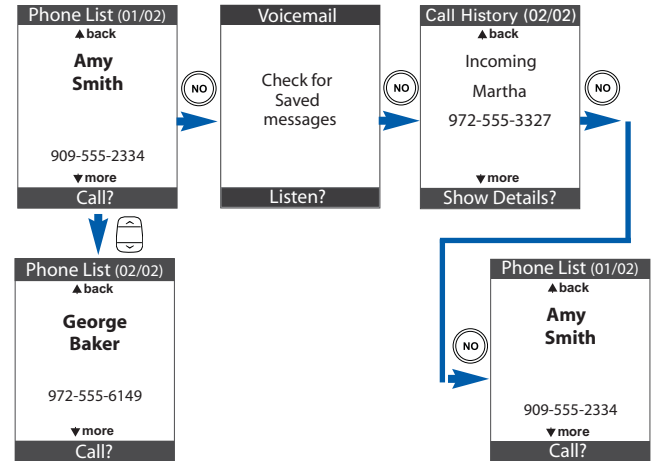
The following diagrams illustrate how to navigate through features should they all be activated. If a certain feature isn't activated on your phone, pressing "NO" will advance to the next active feature.



Feature 2. Phone List with Voice Dialing



Feature 3. Phone List with Call History and other optional services



Your Phone List

This section explains how to use your **Phone List** to save and find the names and numbers of people and services you call frequently.

Topics Covered

- Adding, Changing and Deleting Phone List Numbers
 - via the Operator
 - via the Internet
 - via your Jitterbug
- Using your Jitterbug to change an Existing Number
- Using your Jitterbug to delete a Name or Number
- Finding a Number on your Phone List

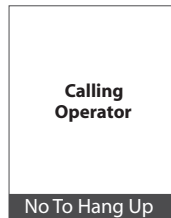
Adding, Changing and Deleting Numbers

You can store up to 50 names and numbers in your **Phone List**.

There are three **simple** options to add, change or delete names and numbers:


OPTION 1: Via the Operator

1. Press the “O” button. A “**Calling Operator**” message appears, as shown.



2. When the operator answers, a “**Connected to...**” message appears. Tell the operator the name and number you want to add, change or delete.



3. To end the call, press  or close your phone.

OPTION 2: Via the Internet at www.MyJitterbug.com

1. Use your computer browser to visit www.MyJitterbug.com

2. If you have not visited www.MyJitterbug.com before, you will be asked to create a login name and password to gain entry.

3. After logging in, select Phone List from the navigation menu on the left.

4. Follow the instructions to add, change, delete or sort numbers. Entries will appear on your phone in the order you enter them on the website.



You can also ask a friend or relative with Internet access to make the changes for you using their computer no matter where they live.



For your security, a password will be required.


OPTION 3: Via your Jitterbug Phone:

Using your Jitterbug to add new entries

NOTE

Please call Customer Service to confirm the Modify Phone List feature is activated on your Jitterbug.

Using the keypad on your Jitterbug to modify numbers on your Phone List takes extra time and is only recommended if you have previous experience entering numbers directly on a cell phone.

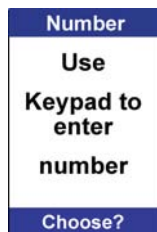
1. Press  repeatedly until your Phone List appears.


2. Press the **Up/Down** arrow button until you come to the **“Modify Phone List”** with **“New Entry?”** at the bottom of the screen, as shown.



3. Press .

4. When you see **“Use Keypad to enter number”** with **“Choose?”** at the bottom, tap in the new number using the corresponding keys on your keypad, one at a time. As you enter a number, it will appear at the top of your screen.



5. When you see **“Completed?”**, press . The number will be stored on your Phone List. You now have the option of entering a name to go with the number you just added.

6. Press any number on the keypad and you'll see the letter **“M”** in the middle of the screen with **“Choose?”** at the bottom.



7. Keep tapping the **Up/Down** arrow button until you come to each letter that spells a short name for the person or service that you want to add to your list, for example, **“D-A-D.”**

8. Be sure to press  after each letter you choose.

9. When you have entered the name, tap the **Up/Down** arrow button until you see **“End”** on the screen, press  and the name will be stored.

NOTE

If you are familiar with entering text by tapping out letters on a phone keypad, you can enter names this way on your Jitterbug Dial phone as well.

Using your Jitterbug to change existing entries

1. Press NO repeatedly until your Phone List appears on the screen.
2. Press the **Up/Down** arrow button to get to the **“Modify Phone List”** screen.
3. Press NO when you see **“New Entry?”**
4. You will see **“Modify?”** at the bottom of the screen.
5. Press the **Up/Down** arrow button until you until you find the number you are looking for, as shown.
6. Press YES to modify the number on the screen.
7. Press YES again when you see **“Modify Number?”**
8. Enter the number using your keypad and press YES when finished. You will see **“Completed?”** at the bottom of the screen.
9. When you see the **“Old Number”** and **“New Number”** with **“Replace?”** below, press YES .

Using your Jitterbug to delete names or numbers


1. Press NO repeatedly until your Phone List appears on the screen.
2. Press the **Up/Down** arrow button until you get to **“Modify Phone List,”** as shown.
3. Press NO when you see **“New Entry?”**
4. Press NO when you see **“Modify?”** below the entry you want to delete.
5. Use the **Up/Down** arrow button to move to the name or number you want
6. to delete.
7. Press when YES you see **“Delete?”**
8. Press when YES you see **“Are you sure?”**

Finding numbers in your Phone List:

1. Press the  button repeatedly until the **Phone List** screen appears, as shown.

2. Press the **Up/Down** arrow button to go through your Phone List until you find the number you're looking for.



3. To call the selected number, press .



Remember that the **Up/Down** arrow button is used to scroll through your **Phone List**.

Call History

This section explains how to **Review** and **Return** missed calls.

Topics Covered

- Using Call History
- Returning Missed Calls
- Redialing Calls
- Saving a Call History Number


FACT

Following the release of the 1982 movie *ET*, the line “phone home” entered common usage. In 1983, public cellular service made it possible for Americans to “phone home” from nearly anywhere.

Using Call History to See Recent Calls:

Your phone keeps a list of your ten **most recent** outgoing, incoming and missed calls.

Reviewing Call History:

1. Press the  button repeatedly until a “**Call History**” screen appears, as shown.
2. Use the **Up/Down** arrow button to scroll through your Call History.

NOTE




If it matches a number stored on your **Phone List**, the name of the person and that number will appear on the screen with the incoming number.

TIP

The top of your screen indicates how many calls you have and which call message you are on. For example, “Call History (02/02).”

Returning Missed Calls and Redialing

You can use the **Call History** list to directly return missed calls and redial both incoming or outgoing calls.


1. Press the  button repeatedly until “**Call History**” appears on the screen.
2. Use the Up/Down arrow button to find your desired call, as shown, and press  .
3. Answer the "Call?" question by pressing the  button to automatically dial that number. You will receive a notification when you miss a call.

NOTE

The **Call History** option on your Jitterbug allows you to save numbers and update your **Phone List** directly from this menu. Please note that this functionality is recommended only for advanced cell phone users.


To keep it simple, we suggest that you update your Phone List via the Jitterbug Operator or by logging onto www.myjitterbug.com. Detailed instructions on updating your Phone List can be found in Section 5 of this guide. If you need assistance, please call [1-800-733-6632](tel:1-800-733-6632)

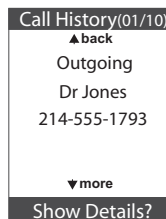
Saving Numbers on Your Call History List


1. Press  repeatedly until **“Call History,”** appears on the screen.


2. Press the **Up/Down** arrow button to find the number you want to move to your Phone List. **“Show Details”** will appear at the bottom of the screen.



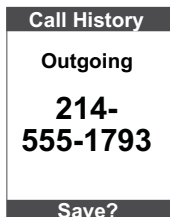
3. Then press . You will see the time and date that the call was made or received, as shown.




4. Press  when you see **“Call?”** at the bottom of the screen.

5. Press  when you see **“Save?”** on the screen.

6. You will see **“Are you sure?”**



7. If this is the number you want to save, press  (Name will not display if not already programmed.)

A three-second flash indicates that the number is being saved. It will be stored as the last entry on your Phone List.

Voicemail

This section explains how to use and manage **Voicemail** on your Dial phone. (This service is optional.)

Topics Covered

- Voicemail Notifications
- Using Voicemail
 - Setting Up Voicemail
 - Listening to Messages
 - Deleting Messages



NOTE

At time of order, we asked for you to provide a PIN to use as your voicemail password. This PIN will only need to be used when checking your voicemail from a phone other than your Jitterbug. Call [1-866-363-4758](tel:1-866-363-4758) to access this feature. You will not need a PIN to check voicemail from your Jitterbug. If you need to know your PIN, call the Jitterbug Operator for assistance

Voicemail Notifications

If you miss a call and get a voicemail message, you'll see **"New Voicemail"** on your Jitterbug's external and internal display screens.

Using Voicemail

To use Voicemail, simply respond to the questions you are asked by pressing your  or  button.

Voicemail is divided into three sections:

- Your voicemail greeting
- New messages
- Saved messages

NOTE

At time of order, we asked for you to provide a PIN to use your voicemail from another phone besides your Jitterbug. You would have to call 1-866-363-4758 to access this feature. You will not need a PIN to check voicemail from your Jitterbug. If you need to know your PIN, call the operator for assistance.

When you access Voicemail, you'll hear a summary detailing the number of new (or saved) messages.






NOTE

You can stop listening to messages at any time by closing your phone to end the call.

Setting Up Voicemail:

You have the choice of using a **personalized greeting** (in your own words and voice) or the **standard** Jitterbug greeting with your name added at the end.




Recording a Personalized Greeting:

1. Scroll to the voicemail screen and press  to call.
2. Follow the instructions and press  or  as questions are asked.
3. You can review your greeting by answering .
4. You can re-record your greeting or change it by answering .

TIP




When recording your voicemail greeting, make sure you are in a quiet place.

Adding Your Name to the Standard Greeting:

1. Scroll to the voicemail screen and press  to call.
2. Follow the audio instructions and press  or  as questions are asked.

If you need help setting up your voicemail recording, call Customer Service at [1-800-733-6632](tel:1-800-733-6632).

Listening to Voicemail Messages:

1. Confirm that your phone is turned on.
2. If you see the **Voicemail** notification screen, press  to answer the question “**Listen?**” If you don't have a new message notification, press  repeatedly until you see the **Voicemail** screen. Answer the “**Listen?**” question by pressing the  button.
3. New messages begin playing automatically.

Deleting Voicemail Messages:

When you hear the prompt, you can delete a message by pressing  .



Once you delete a message, the information is gone. You **cannot retrieve** a deleted message.



Messages you don't choose to delete are automatically saved.

Voice Dialing

This section explains how to use the Voice Dial feature on your phone to call a contact on your **Phone List**, simply by saying the name of the person or service you want to reach.

Topics Covered

- Setting Up Voice Dialing
- Voice Dialing Tips


FACT

April 3, 2003 was the 30th anniversary of the first public phone call made on a portable cell phone. That call was placed by Martin Cooper whose wife, Arlene Harris, is the founder of GreatCall, creator of Jitterbug.

NOTE

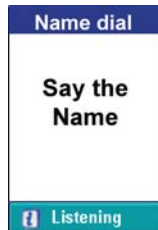
To activate this feature, call Customer Service at [1-800-733-6632](tel:1-800-733-6632).


Setting Up Voice Dialing

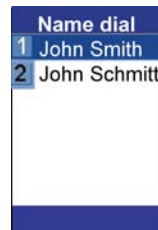
1. Press  when you see **Voice Dial** on your screen. (The command “**Yes to Use**” will appear at the bottom, as shown).





2. **Say the name** of the person you want to call, exactly as it appears on your Phone List.



3. If **Voice Dial** recognizes the name, your phone will confirm the request by asking “Did you say [NAME]?” Confirm by saying “**Yes**” or pressing the  button.



4. If **Voice Dial** is not sure which name you said, you will hear the question “**Did you say?**” followed by the first of three possible names.

5. Say “**Yes**” or press the  button to confirm a name; say “**No**” or press the  button to hear the next name. When you confirm a name, that number will be dialed.



Voice Dialing Tips

- Wait for the beep before speaking.
- Speak a normal volume, as if you were talking to someone on the phone.
- Say the name, exactly as it appears on your Phone List.
- Enunciate clearly as you speak.
- Voice Dialing works by matching a recording of your voice with what you say when using the feature. Always speak the name the same way every time you say it for Voice Dialing to work properly.

Bluetooth

HAC Mode

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

Enabling HAC Mode adjusts the volume for HAC compliant devices used with this handset.

Important!: Enabling the HAC mode can affect the quality of the phone (voice) conversation.

1. To turn a feature on, highlight the HAC mode option and press the Select soft key or the OK key.

Highlight Off or On and press the OK key.

Health and safety information

Exposure to Radio Frequency (RF) Signals

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 the safety standards that were developed by independent scientific organizations through periodic and through 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 phones employs a unit of measurement known as Specific Absorption Rate (SAR). The SAR limit recommended by the FCC is 1.6W/kg.*

SAR tests 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 the 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. This is because the phone is designed to operate at multiple power levels so as 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 of the phone.

Before a new model phone 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. While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure 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 printed in the label on the phone.

* In the U.S. 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.

For body operation

For body worn operation, this model phone has been tested and meets the FCC RF exposure guidelines when used with a Samsung-supplied or approved accessory designated for this product or when used with an accessory that contains no metal and that positions the handset a minimum from the body.

The minimum distance for this model phone is written in the FCC certification information from the body. None compliance with the above conditions may violate FCC RF exposure guidelines.

For more information concerning exposure to radio frequency signals, see the following websites:

Federal Communications Commission (FCC)
<http://www.fcc.gov>

Cellular Telecommunications Industry Association (CTIA):
<http://www.wow-com.com>

U.S. Food and Drug Administration (FDA)
<http://www.fda.gov/cdrh/consumer>

World Health Organization (WHO)
<http://www.who.int/peh-emf/en>

Precautions when using batteries

- Never use any charger or battery that is damaged in any way.
- Use the battery only for its intended purpose.
- If you use the phone near the network's base station, it uses less power; talk and standby time are greatly affected by the signal strength on the cellular network and the parameters set by the network operator.
- Battery charging time depends on the remaining battery charge, the type of battery and the charger used. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and standby time) is noticeably shorter than normal, it is time to buy a new battery.
- If left unused, a fully charged battery will discharge itself over time.

- Use only Samsung-approved batteries and recharge your battery only with Samsung-approved chargers. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more than a week, since overcharging may shorten its life.
- Extreme temperatures will affect the charging capacity of your battery: it may require cooling or warming first.
- Do not leave the battery in hot or cold places, such as in a car in summer or winter conditions, as you will reduce the capacity and lifetime of the battery. Always try to keep the battery at room temperature. A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Li-ion batteries are particularly affected by temperatures below 0 °C (32 °F).
- Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (coin, clip or pen) causes a direct connection between the + and - terminals of the battery (metal strips on the battery), for example when you carry a spare

battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuiting.

- Dispose of used batteries in accordance with local regulations. Always recycle. Do not dispose of batteries in a fire.

Road safety

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

When driving 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:

- Get to know your wireless phone and its features, such as speed dial and redial. If available, these features help you to place your call without taking your attention off the road.

- When available, use a hands-free device. If possible, add an extra layer of convenience and safety to your wireless phone with one of the many hands-free accessories available today.
- Position your wireless phone within easy reach. Be able to access your wireless phone without removing your eyes from the road. If you get an incoming call at an inconvenient time, let your voice mail answer it for you.
- 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, ice, and even heavy traffic can be hazardous.
- Do not take notes or look up phone numbers while driving. Jotting down a To Do list or flipping through your Address Book takes your attention away from your primary responsibility, driving safely.
- Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary. If you need to make a call while moving, dial only a few numbers, check the road and your mirrors, then continue.
- Do not engage in stressful or emotional conversations that may be distracting. Make the people with whom you are talking aware that you are driving and suspend conversations that have the potential to divert your attention from the road.
- Use your wireless phone to call for help. Dial the emergency number in the case of fire, traffic accident or medical emergencies. Remember, it is a free call on your wireless phone!
- Use your wireless phone to help others in emergencies. If you see a car accident, crime in progress or other serious emergency where lives are in danger, call the emergency number, as you would want others to do for you.
- 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 any other special non-emergency wireless number.

Operating environment

Remember to follow any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference or danger.

When connecting the phone or any accessory to another device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).

Electronic devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone. Consult the manufacturer to discuss alternatives.

Pacemakers

Pacemaker manufacturers recommend that a minimum distance of 15 cm (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research and recommendations of Wireless Technology Research.

Persons with pacemakers:

- should always keep the phone more than 15 cm (6 inches) from their pacemaker when the phone is switched on.
- should not carry the phone in a breast pocket.
- should use the ear opposite the pacemaker to minimize potential interference.

If you have any reason to suspect that interference is taking place, switch off your phone immediately.

Hearing aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may wish to consult your hearing aid manufacturer to discuss alternatives.

Other medical devices

If you use any other personal medical devices, 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. Switch off your phone in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using 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. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted facilities

Switch off your phone in any facility where posted notices require you to do so.

Potentially explosive environments

Switch off your phone 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.

Users are advised to switch off the phone while at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include the areas below deck on boats, 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.

Emergency calls

This phone, like any wireless phone, operates using radio signals, wireless and landline networks as well as user-programmed functions, which cannot guarantee connection in all conditions. Therefore, you should never rely solely on any wireless phone for essential communications (medical emergencies, for example).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone networks or when certain network services and/or phone features are in use. Check with local service providers.

To make an emergency call:

If the phone is not on, switch it on.

1. Key in the emergency number for your present location (for example, 911 or other official emergency number). Emergency numbers vary by location.
2. Press [**SEND**].

If certain features are in use (call barring, for example), you may first need to deactivate those features before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your phone may be the only means of communication at the scene of an accident; do not end the call until given permission to do so.

Other important safety information

- Only qualified personnel should service the phone or install the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.
- Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.
- Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the phone, its parts or accessories.

- For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If wireless equipment is improperly installed and the air bag inflates, serious injury could result.
 - Switch off your phone before boarding an aircraft. The use of wireless phones in aircraft is illegal and may be dangerous to the aircraft's operation.
 - Failure to observe these instructions may lead to the suspension or denial of telephone services to the offender, or legal action, or both.
- Keep the phone and all its parts and accessories out of the reach of small children's.
 - Keep the phone dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.
 - Do not use the phone with a wet hand. Doing so may cause an electric shock to you or damage to the phone.
 - Do not use or store the phone in dusty, dirty areas, as its moving parts may be damaged.
 - Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
 - Do not store the phone in cold areas. When the phone warms up to its normal operating temperature, moisture can form inside the phone, which may damage the phone's electronic circuit boards.
 - Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.

Care and maintenance

Your phone is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years:

- Do not use harsh chemicals, cleaning solvents or strong detergents to clean the phone. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.
- Do not paint the phone. Paint can clog the device's moving parts and prevent proper operation.
- Do not put the phone in or on heating devices, such as a microwave oven, a stove or a radiator. The phone may explode when overheated.
- Use only the supplied or an approved replacement antenna. Unauthorized antennas or modified accessories may damage the phone and violate regulations governing radio devices.
- If the phone, battery, charger or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

Acknowledging Special Precautions and the FCC and Industry Canada Notice

FCC Notice and Caution



- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

The phone may cause TV or radio interference if used in close proximity to receiving equipment. The FCC can require you to stop using the phone if such interference cannot be eliminated.

Vehicles using liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Battery march Park, Quincy, MA 02269, Attn: Publication Sales Division.

Cautions

Changes or modifications made in the radio phone, not expressly approved by Samsung, will void the user's authority to operate the equipment.

Only use approved batteries, antennas and chargers. The use of any unauthorized accessories may be dangerous and void the phone warranty if said accessories cause damage or a defect to the phone.

Although your phone is quite sturdy, it is a complex piece of equipment and can be broken. Avoid dropping, hitting, bending or sitting on it.

Appendix A: CERTIFICATION INFORMATION (SAR)

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on safety 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 (SAR). The SAR limit set by the FCC is 1.6 W/kg. SAR Tests are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level

in all tested frequency bands. Although the 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. This is because the phone is designed to operate at multiple power levels so as 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 new model phone 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 FCC. Tests are performed in positions and locations (e.g. at the ear and worn on the body) as required by the FCC.

The tests are performed in positions and locations(e.g., at the ear and worn on the body) as required by the FCC for each model.

The highest SAR values for this model phone as reported to the FCC are:

CDMA Mode(Part 22) Head: 0.106 W/Kg.

Body-worn: 1.23 W/Kg.

PCS Mode(Part 24) Head:1.22 W/Kg.

Body-worn:1.10 W/Kg.

For body worn operations, this model phone has been tested and meets the FCC RF exposure guidelines when used with a Samsung accessory designated for this product or when used with an accessory that contains no metal and that positions the handset a minimum 1.5 cm from the body.

Non-compliance with the above restrictions may result in violation of FCC RF exposure 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 A3LSPHA310.*

*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kilogram (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.

Appendix B: Guide to Safe and Responsible Wireless Phone Use

Cellular Telecommunications & Internet Association
"Safety is the most important call you will ever make."

A Guide to Safe and Responsible Wireless Phone Use

TENS OF MILLIONS OF PEOPLE IN THE U.S. TODAY TAKE ADVANTAGE OF THE UNIQUE COMBINATION OF CONVENIENCE, SAFETY AND VALUE DELIVERED BY THE WIRELESS TELEPHONE. QUITE SIMPLY, THE WIRELESS PHONE GIVES PEOPLE THE POWERFUL ABILITY TO COMMUNICATE BY VOICE-ALMOST ANYWHERE, ANYTIME-WITH THE BOSS, WITH A CLIENT, WITH THE KIDS, WITH EMERGENCY PERSONNEL OR EVEN WITH THE POLICE. EACH YEAR, AMERICANS MAKE BILLIONS OF CALLS FROM THEIR WIRELESS PHONES, AND THE NUMBERS ARE RAPIDLY GROWING.

But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first

responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle whether on the phone or not.

The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense—keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers.

It requires obeying all traffic signs and signals and staying within the speed limit. It means using seat belts and requiring other passengers to do the same.

But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need. When it comes to the use of wireless phones, safety is your most important call.

Wireless Phone “Safety Tips”

Below are safety tips to follow while driving and using a wireless phone which should be easy to remember:

- 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 grab it without removing your eyes from the road. If you get an

incoming call at an inconvenient time, if possible, let your voice mail 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's 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 9-1-1 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!

- 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 9-1-1 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 still can 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. Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational

outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones.

And, as we take to the roads, we all have a responsibility to drive safely.

"The wireless industry reminds you to use your phone safely when driving."

Cellular Telecommunications & Internet Association
For more information, please call 1-888-901-SAFE.
For updates: <http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85>

Appendix C: Consumer Update on Wireless Phones

U.S. Food and Drug Administration

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

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell, mobile, or PCS phones. These types of wireless phones can expose the user to measurable radio frequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of 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 well within the FCC's compliance limits.

2. Do wireless phones pose a health hazard?

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

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

Under the law, FDA does not review the safety of radiation emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radio frequency energy (RF) at a level that is hazardous to the user. In such a case, 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, 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

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 Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration
- The National Institutes of Health participates in some interagency working group activities, as well.

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. FCC relies on FDA and other health agencies for safety questions about wireless phones.

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 primary subject of the safety questions discussed in this document.

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

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).

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.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to 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.

5. What steps can I take to reduce my exposure to radio frequency energy from my wireless phone?

If there is a risk from these products—and at this point we do not know that there is—it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radio frequency 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.

6. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radio frequency 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.

7. Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head

from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike “hand-free” kits, these so-called “shields” may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal Trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

8. What about wireless phone interference with medical equipment?

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, 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 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.

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.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

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

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radio frequency 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.

10.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.

11.Which other federal agencies have responsibilities related to potential RF health effects?

Additional information on the safety of RF exposures from various sources can be obtained from the following organizations.

FCC RF Safety Program:
<http://www.fcc.gov/oet/rfsafety/>

Environmental Protection Agency (EPA):
<http://www.epa.gov/radiation/>

Occupational Safety and Health Administration's (OSHA):
<http://www.osha-slc.gov/SLTC/radiofrequencyradiation/index.html>

National Institute for Occupational Safety and Health (NIOSH):
<http://www.cdc.gov/niosh/emfpg.html>

World Health Organization (WHO):
<http://www.who.int/peh-emf/>

International Commission on Non-Ionizing Radiation Protection:
<http://www.icnirp.de>

National Radiation Protection Board (UK):
<http://www.nrp.org.uk>

Updated 4/3/2002: US Food and Drug Administration
<http://www.fda.gov/cellphones>

Hearing Aid Compatibility with Mobile Phones

When some mobile phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

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

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

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

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to be more usable with a hearing device's telecoil ("T Switch" or "Telephone Switch") than unrated phones. T4 is the better/higher of the two ratings. (Note that not all hearing devices have telecoils in them.)

Hearing devices may also be measured for immunity to this type of interference. Your hearing device manufacturer or hearing health professional may help you find results for your hearing device. The more immune your hearing aid is, the less likely you are to experience interference noise from mobile phones.

STANDARD LIMITED WARRANTY

What is Covered and For How Long? SAMSUNG TELECOMMUNICATIONS AMERICA, L.P. (SAMSUNG) warrants to the original purchaser ("Purchaser") that SAMSUNG's Phones and accessories ("Products") are free from defects in material and workmanship under normal use and service for the period commencing upon the date of purchase and continuing for the following specified period of time after that date:

Phone 1 Year

Batteries 1 Year

Other Phone Accessories 1 Year

What is Not Covered? This Limited Warranty is conditioned upon proper use of Product by Purchaser. This Limited Warranty does not cover: (a) defects or damage resulting from accident, misuse, abuse, neglect, unusual physical, electrical or electromechanical stress, or modification of any part of Product, including antenna, or cosmetic damage;

(b) equipment that has the serial number removed or made illegible; (c) any plastic surfaces or other externally exposed parts that are scratched or damaged due to normal use; (d) malfunctions resulting from the use of Product in conjunction with accessories, products, or ancillary/peripheral equipment not furnished or approved by SAMSUNG; (e) defects or damage from improper testing, operation, maintenance, installation, or adjustment; (f) installation, maintenance, and service of Product, or (g) Product used or purchased outside the United States or Canada.

This Limited Warranty covers batteries only if battery capacity falls below 80% of rated capacity or the battery leaks, and this Limited Warranty does not cover any battery if (i) the battery has been charged by a battery charger not specified or approved by SAMSUNG for charging the battery, (ii) any of the seals on the battery are broken or show evidence of tampering, or (iii) the battery has been used in equipment other than the SAMSUNG phone for which it is specified.

What are SAMSUNG's Obligations? During the applicable warranty period, SAMSUNG will repair or replace, at SAMSUNG's sole option, without charge to Purchaser, any defective component part of Product. To obtain service under this Limited Warranty, Purchaser must return Product to an authorized phone service facility in an adequate container for shipping, accompanied by Purchaser's sales receipt or comparable substitute proof of sale showing the date of purchase, the serial number of Product and the sellers' name and address. To obtain assistance on where to deliver the Product, call Samsung Customer Care at 1-888-987-4357. Upon receipt, SAMSUNG will promptly repair or replace the defective Product. SAMSUNG may, at SAMSUNG's sole option, use rebuilt, reconditioned, or new parts or components when repairing any Product or replace Product with a rebuilt, reconditioned or new Product. All other repaired/replaced Product will be warranted for a period equal to the remainder of the original Limited Warranty on the original Product or for 90 days, whichever is longer. All replaced parts, components,

boards and equipment shall become the property of SAMSUNG.

If SAMSUNG determines that any Product is not covered by this Limited Warranty, Purchaser must pay all parts, shipping, and labor charges for the repair or return of such Product.

What Are the Limits On SAMSUNG's Liability?

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