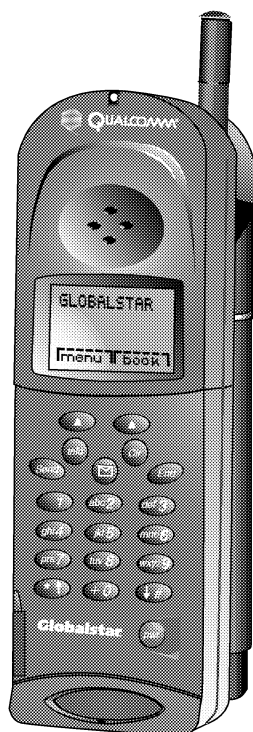
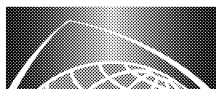


# **QUALCOMM® Globalstar GSP1600 Tri-Mode User Terminal**



**Globalstar**



**User Guide**

Preliminary Draft

This guide is based on a version of the QUALCOMM Globalstar GSP1600 Tri-Mode User Terminal. Software changes may have occurred after this printing.

QUALCOMM reserves the right to make changes in technical and product specifications without prior notice.

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**Preliminary Draft**

## ***Cautions and Warnings***

---



### **Caution**

**Any changes or modifications not expressly approved in this document could void your warranty for this equipment, and void your authority to operate this equipment.**



### **Warning**

**Only use the batteries, antennas, and chargers provided by QUALCOMM. The use of any other type may be dangerous.**



### **Note**

When using the QUALCOMM Globalstar Tri-Mode User Terminal (referred to as phone throughout this guide) close to a television or radio, the phone can cause interference. Regulatory agencies in your area, such as the United States Federal Communication Commission (FCC) or Canadian Industry Canada (IC), can require you to stop using the phone if such interference cannot be eliminated. If you need assistance, contact your service provider (SP).



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## Introduction

Congratulations on your acquisition of a QUALCOMM Globalstar GSP1600 Tri-Mode User Terminal! This high-tech satellite user terminal is referred to as a phone throughout this guide.

Your new phone uses the latest digital wireless technology, Code Division Multiple Access (CDMA), to deliver superior performance for your personal communication needs. The Tri-Mode GSP1600 operates in either Globalstar™ satellite, cellular CDMA, or cellular AMPS mode.

### Using your phone efficiently

To obtain best results and satisfactory service from your phone, follow these guidelines:

- Speak directly into the mouthpiece.
- Fully extend the cellular antenna or properly rotate and position the Globalstar satellite antenna for optimal performance.
- Do not use the phone while driving a vehicle unless you are using the QUALCOMM Globalstar Hands-Free Car Kit. See Hands-free car kit, page 58.







#### Caution

**Avoid exposing the phone and accessories to rain or other liquids. If the phone gets wet, turn the power off immediately and remove the battery pack. See Battery Care and Maintenance, page 50 for more information.**

**Allow only authorized personnel to install or service the phone and its accessories. Faulty installation or service can be dangerous and can invalidate the warranty.**

### Using this guide

To properly operate your phone, first read this guide carefully, especially the battery and safety sections. The following conventions or representations are used in this guide:

|             |  |  |
|-------------|--|--|
| Key Presses | Press  .          | Press key momentarily.   |
|             | Press and hold  . | Press key for more than one second.  |
| SMART KEYS™ | SMART KEY <b>menu</b> .  | Press the SMART KEY under the SMART KEY option.  |
| Scroll Keys | Scroll to select <b>yes</b> or <b>no</b> .   | Press either the volume buttons or  and  . |



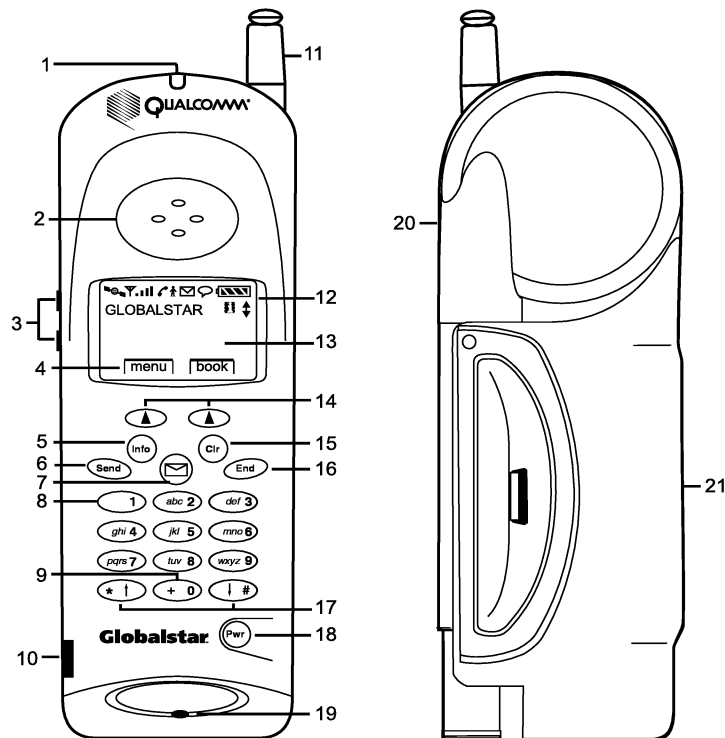
## **Contacting customer service**

Contact your service provider (SP) for customer service.

## Phone Basics

Learn about the phone features and keypad, display indicators, security module, and antennas in this section.

### Phone features and keypad













1. Light indicator – Power on or incoming call.
2. Earpiece
3. Volume buttons – Adjust volume levels. Scroll through the menu items if a scroll arrow displays. Move the cursor when editing alphabetic characters or digits.
4. SMART KEY options – Select using the SMART KEY.
5. Information Key – Insert pauses and hyphens. When **h** displays, get additional help.
6. Send Key – Originate or answer a call.

7. Message Key – Access text messages and voice mail notifications (VMNs).
8. Punctuation Key – Add punctuation or space when entering names to the phone book.
9. International Dialing or Plus (+) Key – Make international calls.
10. Security Module – Activate phone (see Security module, page 5).
11. Cellular antenna.
12. Display indicators – See Display indicators, page 4.
13. Screen.
14. SMART KEYS – Select a SMART KEY option that displays on the screen.
15. Clear Key – Clear characters (press to clear one character, or press and hold to quickly clear all characters). Return to previous screen.
16. End Key – End a call.
17. Scroll Keys – Scroll through menu items if a scroll arrow displays. Move cursor when entering alphabetic characters, but not digits.
18. Power Key – Turn the power on or off.
19. Microphone.
20. Globalstar satellite antenna.
21. Battery.










## Display indicators

The indicators on the screen show the status of the phone and the battery charge level at a quick glance.



|   |   |
|---|---|
|  | Phone operating in Globalstar satellite mode  |
|  | Phone operating in cellular CDMA mode.  |
|  | Signal strength ranging from a strong signal (four lines) to an extremely weak signal (one line).<br><br>Phone operating in cellular AMPS mode if  or  do not display. |
|  | Call in progress.   |
|  | No service available. The phone beeps once when you try to make a call and service is unavailable.  |
|  | Phone roaming outside home area..   |
|  | Text message received..   |
|  | Voice mail notification received..  |

## Phone Basics

|   |   |
|---|---|
|  | Battery charge ranges between four diagonal bars (full charge) to one bar (minimal charge) to no bars and blinking (battery disconnected or no charge left)..   |
|  | Help available (press  )..   |
|  | Designates selected menu option on screen..   |
|  | Indicates you can scroll between screens using the volume buttons or  and  .. |
|  | Indicates text message is locked..  |
|  | Indicates text message is unlocked..  |

## Security module

The security module activates your phone when in Globalstar satellite mode and is located on the lower left side of the front of the phone. Your SP installs and maintains the security module. The security module that comes with your phone only works with that phone and is not interchangeable.



### Caution

**Do not remove the security module.**

The security module must be properly installed to receive or make non-emergency calls when in Globalstar satellite mode. If the security module is not properly installed, you can only make emergency calls. Contact your SP for more information.

## Antennas

Phone performance depends on the strength of the signal it receives. As you fully extend the cellular antenna or rotate the Globalstar satellite antenna, the signal strength indicator shows the strength of the signal received in that particular antenna position. You cannot make a satellite call with the Globalstar satellite antenna stowed.

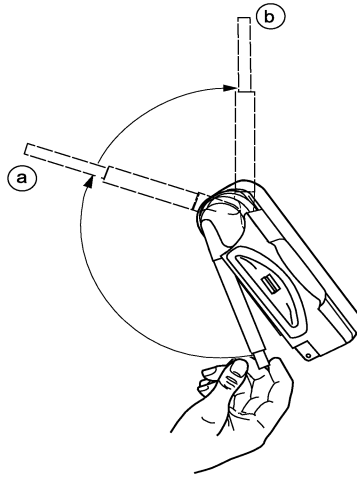
It is important to use the antennas properly for the best performance. Follow these guidelines for the Globalstar satellite and cellular antennas:

- Never hold the phone by the antenna.
- Do not use the phone if either antenna is damaged, unless you are using it with the car kit.

## Using the Globalstar satellite antenna

1. Rotate the Globalstar satellite antenna until it clicks to either the first or second position:
  - a. First position – Sets the antenna vertical to the ground if you hold the phone to your left ear.

- b. Second position – Sets the antenna vertical to the ground if you hold the phone to your right ear.



The Globalstar satellite antenna automatically extends to the proper length and automatically retracts when stowed.



**Caution**

**Never manually push or pull the Globalstar satellite antenna in or out of its protective sleeve.**

2. Always hold the phone so that the Globalstar satellite antenna is vertical to the ground.



3. Hold the phone so that the antenna has an unobstructed view of the sky and the horizon while on a satellite call.

***Phone Basics***



**Caution**


**While on a satellite call, the phone is unlikely to work inside a vehicle, in a building, or in an area where a view of the sky and the horizon is obstructed.**

## Getting Started

Learn about these topics in this section:

- turning the phone on and off
- operating modes
- making, receiving, muting, and ending calls
- entering alphanumeric characters and hyphens
- redialing numbers
- SP services (international dialing, call waiting, three-way calling, and caller ID)



### Turning the phone on

1. Make sure the battery is charged and properly installed (see Battery chargers, page 51 and Battery replacement, page 52).
2. Press and hold  until the indicator light illuminates (about one second). The phone is in standby mode (see Standby mode, page 8), and the message that displays on the screen depends on the mode selected:




The phone first performs a self-test so you know it is ready to make or receive calls. See Making calls, page 10 or Answering calls, page 11.

### Turning the phone off

1. Press and hold  until "Powering Off" displays.
2. Release .



#### Note

If you press  for less than one second, the phone does not turn off.

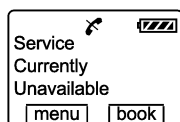
### Standby mode

Standby mode means that the phone is powered on and looking for service. The following screens show the message that displays in standby mode depending on the mode selected:



## Service Currently Unavailable mode

Service currently unavailable mode means that the phone cannot find service, and the following message displays:



The phone periodically attempts to find service while in this mode. To return to standby mode, press any key.

## Entering alphanumeric characters

When the phone is in standby mode, you can only enter digits. You enter names when you save a phone number in the phone book (see Saving entries, page 17).

### To enter digits

1. From standby mode, enter the digits.
2. Do one of the following:
  - Press **Send** to place the call.
  - SMART KEY **save** to save the number in the phone book.

### To enter letters

1. Press a key repeatedly to display the letters in uppercase, then lowercase, and finally the number. For example, if you repeatedly press **def 3**, the following characters display:  
D E F d e f 3
2. Do one of the following:
  - Enter the next character if it is on another key.
  - If the next character is on the same key, move the cursor forward by pressing a down scroll key.
3. SMART KEY **ok** after you enter the name.

### To enter spaces

- Press **↓ #** or the down volume button.

### To enter punctuation or space

- Press **1** repeatedly and the punctuation or space displays in the following order:
  - <space> @ & ( ) : . ' # \* , 1

### To edit letters and digits

- For letters, move the cursor by pressing **\* ↑** or **↓ #** or by pressing the volume buttons.
- For digits, move the cursor by pressing the volume buttons.



**Note**

You cannot use or to move the cursor when entering digits because you can use these keys to enter # or \* for dialing.

**To delete letters and digits**

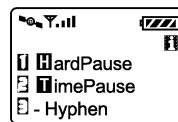
- Press to delete one previous character at a time.
- Press and hold to delete the entire entry.

**Entering hyphens**

You can manually enter hyphens in phone numbers, or you can set Auto Hyphen to on so that hyphens are automatically entered. See Auto Hyphen, page 39. If Auto Hyphen is set to on and you manually enter hyphens, Auto Hyphen is automatically set to off. Each hyphen counts as one character.

**To manually enter a hyphen**

1. Press and the following displays on the screen:



2. Press .

**Making calls**

1. Press and hold to turn the phone on.
2. Select the phone mode of operation, if necessary. (See Mode Selection, page 46.)
3. Rotate the Globalstar satellite antenna or fully extend the cellular antenna.

**Note**

You cannot make a satellite call with the Globalstar satellite antenna stowed.

4. Enter the phone number you want to call.
5. Press . A message displays if the phone is locked, the phone number is restricted, or there is another problem.

**Note**


Do not remove the security module while on a satellite call, or the call will be dropped.

## Making emergency calls

Locking or restricting the phone does not prevent you from placing a call to emergency numbers.


You can program up to three emergency numbers, and your SP can program additional emergency numbers. For more information, see Security Menu, page 32.

### To make an emergency call

1. Enter the emergency number (for example, 911).
2. Press .

## Redialing a call




### To redial the last outgoing number

- Press .

## Answering calls

When you receive a call while the phone is in standby mode, the phone rings, the indicator light flashes, and “Incoming Call” flashes on the screen until you answer the call.

### To answer a call


- Do one of the following:
  - ☐ Press .
  - ☐ From standby mode, if Any Key Answer is on, press any key except  or  (see Any Key Answer, page 41).



#### Note

Do not remove the security module while on a call, or the call will be dropped.

### To silence the ringer when receiving an incoming call

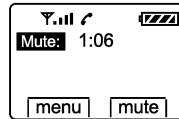
- Press .

## Muting a call

While you are on a call, you can mute the microphone so that the caller cannot hear you.

### To turn mute on

- SMART KEY **mute**. The word “Mute” replaces the word “Time” on the screen and displays until you access the menus or end the call.



#### To turn mute off

- SMART KEY **mute**. The word “Time” replaces the word “Mute” on the screen.

### Ending calls

- Press **End**. The total time of the call displays.

### Displaying the phone number

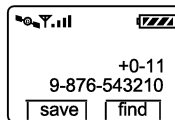
- Turn the phone on, and its phone number briefly displays.
- From standby mode, press **Info**.

### International dialing

You can make international calls using the plus key **+ 0**.

#### To make international calls

1. Press and hold **+ 0** until a plus (+) displays on the screen.
2. Enter the country code and the phone number. For example, if you enter country code 011, the area code 987, and the number 654-3210, the following displays on the screen:



#### Note

You can either manually enter hyphens or set AutoHyphen to on for automatic insertion of hyphens. See *Entering Hyphens or Auto Hyphen*, page 39.

3. Press **Send**.

If international dialing is supported in your network, contact your SP for more information.

### Call waiting

For instructions on how to use call waiting, contact your SP.

### ***Getting Started***

## **Three-way calling**

For instructions on how to use three-way calling, contact your SP.

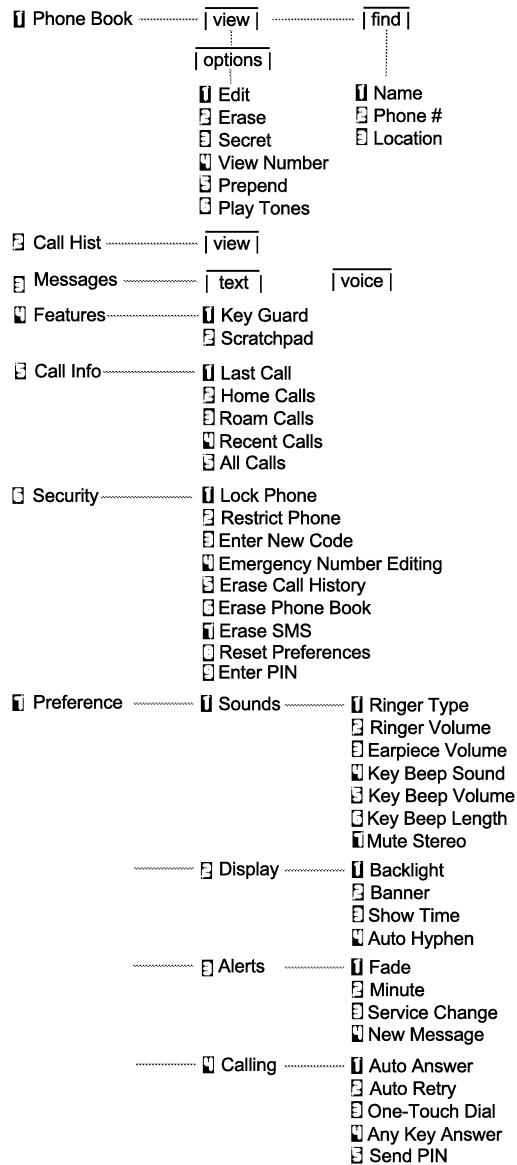
## **Caller ID**

When you receive an incoming call, the caller's phone number displays on the screen. If the phone number of the caller is stored in your phone book, the name displays instead of the phone number.

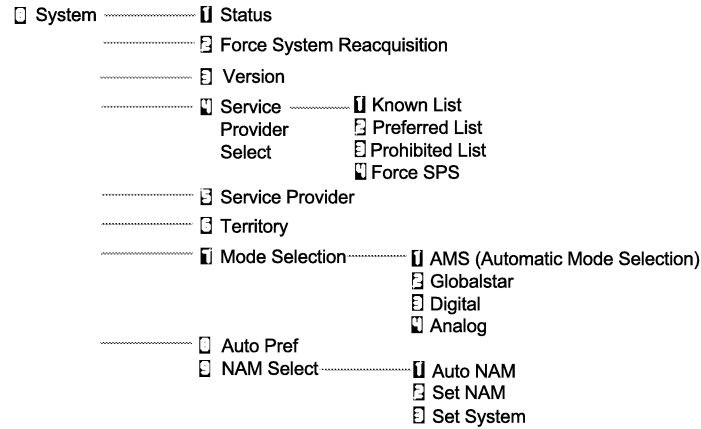
For more information on caller ID, contact your SP.

## Menu Basics

Learn how to navigate through the phone's menus in this section. The following road map shows the various menus.



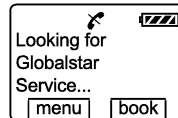
## Menu Basics



The phone menus are designed like computer menus, and you can easily access and navigate through them.




## Accessing the main menu

1. Turn the phone on. The phone is now in standby mode (see Standby mode, page 8), and the message that displays on the screen depends on the mode selected;



2. SMART KEY **menu** and the first three main menu items display. If there are scroll arrows on the screen, you can scroll between screens to access additional menu options.

Each main menu item is explained in sequential order in a separate section of this user guide.

|   |                                    |
|---|------------------------------------|
|  <div> Main Menu<br/> Phone Book<br/> Call Hist<br/> Messages </div> | ↓<br>page 17<br>page 22<br>page 24 |
|  <div> Main Menu<br/> Features<br/> Call Info<br/> Security </div>   | ↕<br>page 28<br>page 29<br>page 32 |
|  <div> Main Menu<br/> Preference<br/> System </div>                  | ↑<br>page 35<br>page 43            |

## Navigating and using the menus


### To navigate the menus

- To access additional menu items when a scroll arrow displays on the screen, press the scroll keys.
- To select a menu item, press the corresponding number.


### To save changes or a setting

- SMART KEY **ok**.

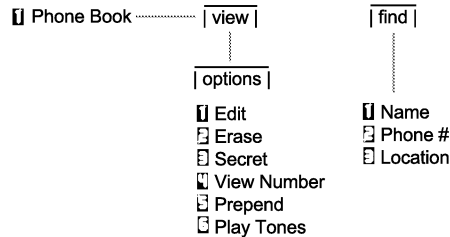
### To return to previous screen without saving changes

- Press .

### To return to main menu if *not* on a call without saving changes

- Press .

## Phone Book Menu



Learn about entering pauses, speed dialing, and one-touch dialing in this section, as well.

### Saving entries

The phone saves up to 99 entries. Each entry contains a name (up to 12 characters) and phone number (up to 32 digits) stored in location numbers 1 through 99. See *Entering alphanumeric characters*, page 9.

You can also store pauses in phone book entries when automated phone services, such as voice mail or online banking, require personal identification or account numbers. See *Entering pauses*, page 18.

#### To save entries

1. Do one of the following:
  - Enter a phone number from standby mode.
  - Select a number from the scratchpad.
  - Select a number on the call history list.
  - Select a number on the screen, such as Caller ID.



2. SMART KEY **save**.
3. Enter a name and SMART KEY **ok**.
4. Enter a location number:
  - If the phone book is *not* full:
    - SMART KEY **ok** to automatically accept the next empty location.
    - SMART KEY **next** to scroll to an empty location.
    - Enter a location number of your choice.
  - If the phone book is full, enter a location number that you want to reuse and replace with the new information.



## Entering pauses

When using automated phone services, such as voice mail or online banking, you can save hard or timed pauses in phone book entries. You can also enter pauses manually. Each pause counts as one character.

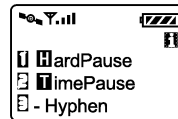






### Note

If Auto Hyphen is set to on and you manually enter pauses, Auto Hyphen is automatically set to off.

### To enter pauses

1. Press  and the following displays on the screen:




2. Press:
  -  for Hard Pause – Stops until you SMART KEY **resume** to send the rest of the number sequence.
  -  for Timed Pause – Stops for two seconds and then resumes automatically.
  -  displays for hard pauses and  displays for timed pauses.

## Making entries secret

To prevent a phone number from displaying on the screen, you can make the entry “Secret.”

### To make an entry secret or nonsecret

1. From standby mode, SMART KEY **book**.
2. Select the entry you want to make secret.
3. SMART KEY **view**.
4. SMART KEY **options**.
5. Press  and scroll to select:
  - yes – makes the entry secret
  - no – makes the entry nonsecret
6. SMART KEY **ok**.




## Finding entries

You can find entries either by name, phone number, or location number. You can also scroll through the phone book to view the entries.

### To find an entry

1. From standby mode, SMART KEY **book**.


## Phone Book Menu

2. SMART KEY **find**.
3. Press:
  -  for Name.
  -  for Phone #.
  -  for Location.
4. Enter one or more characters.







### Note


Searches ignore differences between upper- and lowercase letters.

5. SMART KEY **find** and scroll through the entries if necessary.
6. SMART KEY **view**.
7. Press  to call the number.

## Editing entries

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  to Edit.
5. Press:
  -  for Name.
  -  for Number.
  -  for Location.
6. Edit the name or phone number, or edit a location number by doing one of the following:
  - Enter a new location number.
  - SMART KEY **next** to scroll to a new location number.
7. SMART KEY **ok**.



## Erasing entries

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  to Erase.
5. SMART KEY **ok**.

## Viewing numbers

You can view an entry's entire phone number. You can also prepend (add) digits at the beginning of the phone number when viewing a number.


### To view numbers

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for View #.
5. Do one of the following:
  - SMART KEY **ok** to return to the previous menu.
  - Press  to return to standby mode.

### Prepending numbers

You can permanently prepend (add) numbers at the beginning of the phone number to an existing phone book entry, such as an area code or country code.

#### To prepend (add) numbers

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for Prepend. The phone number displays.
5. Enter the numbers.
6. SMART KEY **save**.

### Playing tones


You can play DTMF (Dual Tone Multi-Frequency) tones over the air using the keypad when using automated phone services, such as voice mail or online banking.



#### Note

The key beep length affects the DTMF tones, the sound you hear when pressing the keys. For more information, see Key Beep Length, page 37.

#### To play tones

1. While on a call, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for Play Tones. The tones are sent over the air.


### Speed dialing

You can speed dial a phone number if you know the location number of the phone book entry. You can speed dial any of the 99 location numbers unless the phone is restricted. If you restrict the phone, then only the emergency numbers


### **Phone Book Menu**

(both yours and the SP's) and the first 9 phone book locations are available for speed dial.




#### **To speed dial a phone number**

1. Enter the location number.
2. Press .

### **One-touch dialing**

If you set one-touch dial to on, you can dial any of the 99 location numbers without pressing . To set one-touch dial, see One-Touch Dial, page 41

#### **To one-touch dial a phone number**

1. Set one-touch dial (see To set one-touch dial, page 41).
2. Press and hold the last digit of the location number. For example:
  - Press and hold  for location number 3.
  - Press  and then press and hold  for location number 32.

## Call History Menu

You can access a call history list of the last 10 calls (incoming or outgoing), as well as view details about each call.

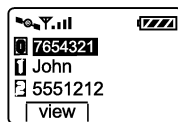
- **Called By** Incoming calls, if caller ID is available (see Caller ID, page 13)
- **Call To** Outgoing calls
- **Added** Scratchpad entries (see Scratchpad, page 28)
- **Missed** Unanswered calls, if caller ID is available
- **Caller ID** Caller ID information received
- **Call Waiting** Call-waiting information received during a call

The most recent call displays at the top of the list and the oldest call at the bottom (separated by a line). When the list is full, a new call replaces the oldest call in the list.

Names display in the call history list when the caller's phone number is identified as stored in the phone book.

### Accessing call history list

1. From standby mode, SMART KEY **menu**.
2. Press **abc 2** for Call Hist.
3. Press the scroll keys to access the last 10 calls.

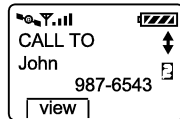


4. Scroll down to select a call from the most recent to the oldest calls, or scroll up to select a call from the oldest to the most recent. The most recent call and the oldest call are separated by a dashed line.
5. Do one of the following:
  - To call the number, press **Send**.
  - To save the number in your phone book, SMART KEY **view** and SMART KEY **save**. (See Saving entries, page 17.)
  - To exit call history without calling or storing a number, press **End** or **clr**.

### **Call History Menu**

## **Viewing call history details**



1. Scroll to select a call on the list.
2. SMART KEY **view**.



3. Do one of the following:
  - Scroll up or down to view other calls.
  - To call the number, press **Send**
  - To save the number in your phone book, SMART KEY **view** and SMART KEY **save**. (See Saving entries, page 17.)

## Messages Menu

Learn about retrieving text and voice mail notifications (VMNs) in this section. If the message feature is not available, contact your SP.





You can retrieve text and VMNs from your phone. When the phone is turned on and you receive a text message or VMN, the phone alerts you by sounding a beep and displaying the text message  or VMN  indicators on the screen until you read all the messages.

You always access new messages before accessing old messages. If the message contains a call back number saved in your phone book, the corresponding name displays in place of the number.

### Voice messages


You retrieve voice messages from your SP's voice mail system. You receive voice mail notifications of those voice messages (and possibly more detail from your SP) on the phone.

If you have more than one voice mail system, the total number of voice messages (not the total number of VMNs) received by those systems displays on the screen. For example, if you have two voice mail systems and you receive two voice messages from one system and two from the other system, the following displays:


|   |   |
|---|---|
|  |  |
| Msgs  | New/Old   |
| Text  | 00/00   |
| Voice   | 04  |
|  |  |

If new VMNs are received, the total number of voice messages is updated.



#### To access voice mail notifications

1. From standby mode, press . The total number of voice mail messages received displays under "old."
2. **SMART KEY voice**. The VMN displays either a call back number or the name in your phone book associated with the call back number. (If more than one name is associated with a call back number, the entry with the lowest location number displays.)
3. Do one of the following:
  - **SMART KEY next** to read the next VMN.
  - **SMART KEY view** to display more detail, if available, which automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.


#### To call your voice mail system

1. Press .

### Messages Menu

2. SMART KEY **voice**.
3. SMART KEY **next** to find the VMN you want.
4. SMART KEY **view**.
5. Press .
6. If necessary, prepend (insert) digits to the beginning of the voice mail number if a call back number is received. If not, the message "No Voice Mail # received" displays. For example, if you are out of the area of the voice mail number, enter the area code or country code.
7. Press  again.
8. Follow the voice mail system's instructions to retrieve your messages.


### To erase voice message notifications

1. Press .
2. SMART KEY **voice**.
3. SMART KEY **next** to find the VMN you want.
4. SMART KEY **view**.
5. SMART KEY **eras** to erase the message.
6. SMART KEY **ok**.



## Text messages

Text messages can include call back numbers, messages, urgency stamps, time and date stamps, and possibly names if the call back number matches one in the phone book. The phone stores as many text messages as available memory allows. For more information on managing phone memory, see Text message storage, page 26.

### To access text messages

1. Press . The number of new and old text messages displays.
2. SMART KEY **text**. The newest unread messages display first followed by the newest read messages, if any.
3. Do one of the following:
  - SMART KEY **next** to read the next message.
  - SMART KEY **view** to display more detail if available. It automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.

### To call back numbers in text messages

1. Press .
2. SMART KEY **text**.
3. SMART KEY **next** to find the message you want.
4. SMART KEY **view**.
5. Press .



## Entering pauses

When using automated phone services, such as voice mail or online banking, you can save hard or timed pauses in phone book entries. You can also enter pauses manually. Each pause counts as one character.

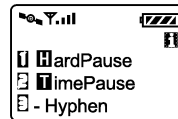






### Note

If Auto Hyphen is set to on and you manually enter pauses, Auto Hyphen is automatically set to off.

### To enter pauses

1. Press  and the following displays on the screen:




2. Press:
  -  for Hard Pause – Stops until you SMART KEY **resume** to send the rest of the number sequence.
  -  for Timed Pause – Stops for two seconds and then resumes automatically.
  -  displays for hard pauses and  displays for timed pauses.

## Making entries secret

To prevent a phone number from displaying on the screen, you can make the entry “Secret.”

### To make an entry secret or nonsecret

1. From standby mode, SMART KEY **book**.
2. Select the entry you want to make secret.
3. SMART KEY **view**.
4. SMART KEY **options**.
5. Press  and scroll to select:
  - yes – makes the entry secret
  - no – makes the entry nonsecret
6. SMART KEY **ok**.




## Finding entries

You can find entries either by name, phone number, or location number. You can also scroll through the phone book to view the entries.

### To find an entry

1. From standby mode, SMART KEY **book**.


## Phone Book Menu

2. SMART KEY **find**.
3. Press:
  -  for Name.
  -  for Phone #.
  -  for Location.
4. Enter one or more characters.







### Note


Searches ignore differences between upper- and lowercase letters.

5. SMART KEY **find** and scroll through the entries if necessary.
6. SMART KEY **view**.
7. Press  to call the number.

## Editing entries

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  to Edit.
5. Press:
  -  for Name.
  -  for Number.
  -  for Location.
6. Edit the name or phone number, or edit a location number by doing one of the following:
  - Enter a new location number.
  - SMART KEY **next** to scroll to a new location number.
7. SMART KEY **ok**.



## Erasing entries

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  to Erase.
5. SMART KEY **ok**.

## Viewing numbers

You can view an entry's entire phone number. You can also prepend (add) digits at the beginning of the phone number when viewing a number.


### To view numbers

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for View #.
5. Do one of the following:
  - SMART KEY **ok** to return to the previous menu.
  - Press  to return to standby mode.

### Prepending numbers

You can permanently prepend (add) numbers at the beginning of the phone number to an existing phone book entry, such as an area code or country code.

#### To prepend (add) numbers

1. From standby mode, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for Prepend. The phone number displays.
5. Enter the numbers.
6. SMART KEY **save**.

### Playing tones


You can play DTMF (Dual Tone Multi-Frequency) tones over the air using the keypad when using automated phone services, such as voice mail or online banking.



#### Note

The key beep length affects the DTMF tones, the sound you hear when pressing the keys. For more information, see Key Beep Length, page 37.

#### To play tones

1. While on a call, SMART KEY **book**.
2. Select the entry and SMART KEY **view**.
3. SMART KEY **options**.
4. Press  for Play Tones. The tones are sent over the air.


### Speed dialing

You can speed dial a phone number if you know the location number of the phone book entry. You can speed dial any of the 99 location numbers unless the phone is restricted. If you restrict the phone, then only the emergency numbers


### **Phone Book Menu**

(both yours and the SP's) and the first 9 phone book locations are available for speed dial.




#### **To speed dial a phone number**

1. Enter the location number.
2. Press .

### **One-touch dialing**

If you set one-touch dial to on, you can dial any of the 99 location numbers without pressing . To set one-touch dial, see One-Touch Dial, page 41

#### **To one-touch dial a phone number**

1. Set one-touch dial (see To set one-touch dial, page 41).
2. Press and hold the last digit of the location number. For example:
  - Press and hold  for location number 3.
  - Press  and then press and hold  for location number 32.

## Call History Menu

You can access a call history list of the last 10 calls (incoming or outgoing), as well as view details about each call.

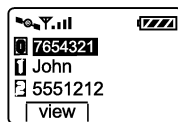
- **Called By** Incoming calls, if caller ID is available (see Caller ID, page 13)
- **Call To** Outgoing calls
- **Added** Scratchpad entries (see Scratchpad, page 28)
- **Missed** Unanswered calls, if caller ID is available
- **Caller ID** Caller ID information received
- **Call Waiting** Call-waiting information received during a call

The most recent call displays at the top of the list and the oldest call at the bottom (separated by a line). When the list is full, a new call replaces the oldest call in the list.

Names display in the call history list when the caller's phone number is identified as stored in the phone book.

### Accessing call history list

1. From standby mode, SMART KEY **menu**.
2. Press **abc 2** for Call Hist.
3. Press the scroll keys to access the last 10 calls.

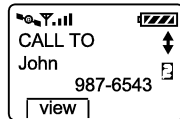


4. Scroll down to select a call from the most recent to the oldest calls, or scroll up to select a call from the oldest to the most recent. The most recent call and the oldest call are separated by a dashed line.
5. Do one of the following:
  - To call the number, press **Send**.
  - To save the number in your phone book, SMART KEY **view** and SMART KEY **save**. (See Saving entries, page 17.)
  - To exit call history without calling or storing a number, press **End** or **clr**.

### **Call History Menu**

## **Viewing call history details**



1. Scroll to select a call on the list.
2. SMART KEY **view**.



3. Do one of the following:
  - Scroll up or down to view other calls.
  - To call the number, press **Send**
  - To save the number in your phone book, SMART KEY **view** and SMART KEY **save**. (See Saving entries, page 17.)

## Messages Menu

Learn about retrieving text and voice mail notifications (VMNs) in this section. If the message feature is not available, contact your SP.



You can retrieve text and VMNs from your phone. When the phone is turned on and you receive a text message or VMN, the phone alerts you by sounding a beep and displaying the text message  or VMN  indicators on the screen until you read all the messages.

You always access new messages before accessing old messages. If the message contains a call back number saved in your phone book, the corresponding name displays in place of the number.

### Voice messages


You retrieve voice messages from your SP's voice mail system. You receive voice mail notifications of those voice messages (and possibly more detail from your SP) on the phone.

If you have more than one voice mail system, the total number of voice messages (not the total number of VMNs) received by those systems displays on the screen. For example, if you have two voice mail systems and you receive two voice messages from one system and two from the other system, the following displays:


|   |   |
|---|---|
|  |  |
| Msgs  | New/Old   |
| Text  | 00/00   |
| Voice   | 04  |
| <input type="button" value="text"/>   | <input type="button" value="voice"/>  |

If new VMNs are received, the total number of voice messages is updated.



#### To access voice mail notifications

1. From standby mode, press . The total number of voice mail messages received displays under "old."
2. SMART KEY **voice**. The VMN displays either a call back number or the name in your phone book associated with the call back number. (If more than one name is associated with a call back number, the entry with the lowest location number displays.)
3. Do one of the following:
  - SMART KEY **next** to read the next VMN.
  - SMART KEY **view** to display more detail, if available, which automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.


#### To call your voice mail system

1. Press .

### Messages Menu

2. SMART KEY **voice**.
3. SMART KEY **next** to find the VMN you want.
4. SMART KEY **view**.
5. Press .
6. If necessary, prepend (insert) digits to the beginning of the voice mail number if a call back number is received. If not, the message "No Voice Mail # received" displays. For example, if you are out of the area of the voice mail number, enter the area code or country code.
7. Press  again.
8. Follow the voice mail system's instructions to retrieve your messages.


### To erase voice message notifications

1. Press .
2. SMART KEY **voice**.
3. SMART KEY **next** to find the VMN you want.
4. SMART KEY **view**.
5. SMART KEY **eras** to erase the message.
6. SMART KEY **ok**.



## Text messages

Text messages can include call back numbers, messages, urgency stamps, time and date stamps, and possibly names if the call back number matches one in the phone book. The phone stores as many text messages as available memory allows. For more information on managing phone memory, see Text message storage, page 26.


### To access text messages

1. Press . The number of new and old text messages displays.
2. SMART KEY **text**. The newest unread messages display first followed by the newest read messages, if any.
3. Do one of the following:
  - SMART KEY **next** to read the next message.
  - SMART KEY **view** to display more detail if available. It automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.



### To call back numbers in text messages

1. Press .
2. SMART KEY **text**.
3. SMART KEY **next** to find the message you want.
4. SMART KEY **view**.
5. Press .



6. Prepend (insert) digits to the beginning of the call back number if necessary. For example, if you are out of the area of the phone number, enter the area code or country code.
7. Press  again.

#### To erase text messages

1. Press .
2. **SMART KEY text.** The messages displays the text message.
3. **SMART KEY view** to display more detail if available. It automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.
4. Scroll to the bottom of the message and **SMART KEY opts.**
5. Press  for Erase.
6. **SMART KEY ok** to erase the message.








#### Note

You can erase a text message even if it is locked.

### Locking and unlocking text messages

To prevent messages from being automatically deleted, you can lock them.

#### To lock or unlock text messages

1. Press .
2. **SMART KEY text.** The newest text message displays.
3. **SMART KEY view** to display more detail if available. It automatically scrolls on the screen and pauses so you can read it. Press a scroll key to manually scroll.
4. Scroll to the bottom of the message and **SMART KEY opts.**
5. Press:
  -  for Lock. The lock  indicator displays to the left of the SMART KEYS.
  -  for Unlock. The unlock  indicator displays to the left of the SMART KEYS.


### Text message storage

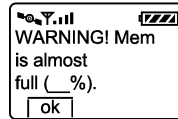
Text messages are saved until you erase them or until the phone memory is full. The oldest unlocked messages are deleted to allow for receipt of new messages when the phone runs out of memory.

To prevent messages from being deleted, you can lock them . However, if all messages are locked when the phone runs out of memory, the new message is lost. The network may try to deliver it later.

### **Messages Menu**

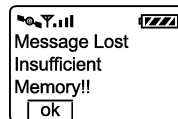
#### **To find out the percentage of used memory**

1. Press  and a message displays:



#### **To avoid running out of memory**

- Erase locked or unlocked messages that you no longer need. When the phone runs out of memory and all text messages are locked, it no longer accepts new messages and this message displays:



The network may try to deliver lost messages later.

## Features Menu

Features ..... Key Guard  
Scratchpad

### Key Guard

The key guard locks the phone keys to prevent accidental use.

#### To turn the key guard on

- *Shortcut:* From standby mode, press and hold **End**. The lock **KG** indicator and “KeyGuard On” displays.

#### To turn the key guard off

- Press **1** **abc 2** **def 3**.

### Scratchpad

While on a call, you can enter numbers to add to call history, save to your phone book, or play tones over the network when banking online, such as account numbers or PINs (personal identification numbers).

#### To access the scratchpad

1. From standby mode, SMART KEY menu.
2. Press **ghi 4** for Features.
3. Press **abc 2** for Scratchpad.
4. Enter numbers.
5. SMART KEY options.
6. Press:
  - **1** to AddToHist, and the number is added to call history.
  - **abc 2** to Save to your phone book. See Saving entries, page 17.
  - **def 3** to Play Tones, and the tones are immediately sent over the network.

## Call Info Menu

---



- Call Info.....
- Last Call
- Home Calls
- Roam Calls
- Recent Calls
- All Calls

The Call Info menu contains counters that allow you to track the number of calls and airtime for billing purposes.

### Last Call

Last Call displays the duration of the last call in minutes and seconds. If Call History is empty, “None” displays.



#### To display last call information

1. From standby mode, SMART KEY **menu**.
2. Press  for Call Info.
3. Press  for Last Call.
4. SMART KEY **ok**.

### Home Calls

Home Calls displays the number and duration of all incoming and outgoing calls made in your home service area. You can reset this counter to zero.

#### To display home calls information

1. From standby mode, SMART KEY **menu**.
2. Press  for Call Info.
3. Press  for Home Calls.
4. SMART KEY **ok**.

#### To reset the counter to zero

1. SMART KEY **zero**.
2. SMART KEY **ok**.

#### To undo the counter reset

- SMART KEY **undo**.



#### Note

After you SMART KEY **ok**, you cannot undo the counter reset.

## Roam Calls

Roam Calls displays the number and duration of roam calls. You can reset this counter to zero.

### To display roam calls information

1. From standby mode, SMART KEY **menu**.
2. Press for Call Info.
3. Press for Roam Calls.
4. SMART KEY **ok**.

### To reset the counter to zero

1. SMART KEY **zero**.
2. SMART KEY **ok**.

### To undo the resetting of the counter

- SMART KEY **undo**.



#### Note

After you SMART KEY **ok**, you cannot undo the counter reset.

## Recent Calls

Recent Calls displays the number and duration of calls made or received since resetting the counter. You can reset this counter to zero.

### To display recent calls information

1. From standby mode, SMART KEY **menu**.
2. Press for Call Info.
3. Press for RecentCall.
4. SMART KEY **ok** to return to standby mode.

### To reset the counter to zero

1. SMART KEY **zero**.
2. SMART KEY **ok**.

### To undo the resetting of the counter

- SMART KEY **undo**.



#### Note



After you SMART KEY **ok**, you cannot undo the counter reset.

### ***Call Info Menu***

## **All Calls**

All Calls displays the number and duration of all calls for the lifetime of your phone. You cannot reset this counter.

### **To display all calls information**

1. From standby mode, SMART KEY **menu**.
2. Press  for Call Info.
3. Press  for All Calls.
4. SMART KEY **ok**.

## Security Menu

- |                 |                            |
|-----------------|----------------------------|
| ☐ Security..... | ☑ Lock Phone               |
|                 | ☑ Restrict Phone           |
|                 | ☑ Enter New Code           |
|                 | ☑ Emergency Number Editing |
|                 | ☑ Erase Call History       |
|                 | ☑ Erase Phone Book         |
|                 | ☑ Erase SMS                |
|                 | ☑ Reset Preferences        |
|                 | ☑ Enter PIN                |



When you access the Security menu, enter the code supplied by your SP. Change the code immediately after receiving the phone from your SP. See Entering a new code, page 33.

Subsequently, each time you access the Security menu, you are prompted for your new code. If you forget your code, contact your SP.

### Locking phone

You can lock the phone so that you can only receive calls and dial emergency numbers. Other functions are locked. To dial emergency numbers, use manual dial, speed dial, one-touch dial, or last number redial.



#### To lock the phone

1. From standby mode, **SMART KEY menu**.
2. Press  for Security and enter code.
3. Press  for Lock Phone.
4. Scroll to select one of these options:
  - never – Never locks the phone.
  - now – Immediately locks the phone. This resets to Never the next time you use your lock code to unlock the phone.
  - on power up – Locks the phone when turned on.

### Restricting phone

You can restrict outgoing calls only to emergency numbers or phone book locations 1 to 9.

#### To restrict the phone



1. From standby mode, **SMART KEY menu**.
2. Press  for Security and enter code.
3. Press  for Restricted.
4. Scroll to select one of these options:
  - yes – Make calls only to emergency numbers and phone book locations 1 to 9.
  - no – Make calls to any number.

## Security Menu

### Entering a new code

You can change your code to access the Security menus.



#### To enter a new code

1. From standby mode, SMART KEY **menu**.
2. Press  for Security and enter current code.
3. Press  for New Code.
4. Enter a new code consisting of four digits.
5. SMART KEY **save**. The new code displays momentarily on the screen.



### Editing emergency numbers

You can program up to three emergency numbers, and your SP can program additional emergency numbers. You can call emergency numbers when the phone is locked or restricted. You can also view the entire emergency number (up to 32 digits).



#### To edit an emergency number

1. From standby mode, SMART KEY **menu**.
2. Press  for Security and enter code.
3. Press  for Emergency.
4. Scroll to Emergency1, Emergency2, or Emergency3.
5. SMART KEY **edit**.
6. Enter the emergency number.
7. SMART KEY **ok**.

### Erasing call history list

1. From standby mode, SMART KEY **menu**.
2. Press  for Security and enter code.
3. Press  for Erase Call.
4. SMART KEY **ok**.
5. SMART KEY **ok** when prompted to erase the call history list.

### Erasing phone book entries

1. From standby mode, SMART KEY **menu**.
2. Press  for Security and enter code.
3. Press  for Erase Book.
4. SMART KEY **ok**.
5. SMART KEY **ok** when prompted to erase all entries in the phone book.



## Erasing SMS messages

You can erase all SMS (Short Message Service) messages, which include all text and VMN messages.

### To erase all messages

1. From standby mode, SMART KEY **menu**.
2. Press **mnc 6** for Security and enter code.
3. Press **pqrs 7** for Erase SMS.
4. SMART KEY **ok**.
5. SMART KEY **ok** when prompted to erase all messages.

## Resetting Preferences

You can reset all preferences to the original defaults set by your SP. This option also deletes the SP Preferred and Prohibited Lists (see Service Provider Select, page 44). However, this option does not erase the phone book, call history, SMS messages, or banner, and does not reset the security code.

### To reset preferences

1. From standby mode, SMART KEY **menu**.
2. Press **mnc 6** for Security and enter code.
3. Press **tuv 8** for Reset Prefs.
4. SMART KEY **ok**.
5. SMART KEY **ok** when prompted to erase all preferences.

## Entering PIN

When making cellular AMPS (analog) calls, your SP may support use of a PIN (personal identification number) for verification before connecting the call. If you want to be prompted for your PIN before making cellular AMPs calls, see Send PIN, page 42. Contact your SP for more information.

### To enter your PIN

1. From standby mode, SMART KEY **menu**.
2. Press **mnc 6** for Security and enter code.
3. Press **wxyz 9** for Enter PIN.
4. Enter four-digit PIN.
5. SMART KEY **save**.

## Preferences Menu

|            |         |                 |
|------------|---------|-----------------|
| Preference | Sounds  | Ringer Type     |
|            |         | Ringer Volume   |
|            |         | Earpiece Volume |
|            |         | Key Beep Sound  |
|            |         | Key Beep Volume |
|            |         | Key Beep Length |
|            |         | Mute Stereo     |
|            | Display | Backlight       |
|            |         | Banner          |
|            |         | Show Time       |
|            |         | Auto Hyphen     |
|            | Alerts  | Fade            |
|            |         | Minute          |
|            |         | Service Change  |
|            |         | New Message     |
|            | Calling | Auto Answer     |
|            |         | Auto Retry      |
|            |         | One-Touch Dial  |
|            |         | Any Key Answer  |
|            |         | Send PIN        |

### Sound

You can set ringer type, ringer volume, earpiece volume, key beep sound, key beep volume, key beep length, and mute stereo.

#### Ringer Type

You can change the ringer for incoming calls to one of eight different rings or songs.

##### To set the ringer type

1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **1** for Sounds.
4. Press **1** for Ringer Type.
5. Scroll to select the ringer type.
6. SMART KEY **ok**.

#### Ringer Volume

- Do one of the following from standby mode:
  - Press the volume buttons.
  - SMART KEY **menu**.
    - Press **pqrs 7** for Preferences.
    - Press **1** for Sounds.
    - Press **abc 2** for Ringer Vol.

- Select the volume level from 1 (lowest) to 9 (highest) or Silent to turn the ringer off (while in standby mode, “-Ringer Off-” displays in place of the date).
- SMART KEY **ok**.

## Earpiece Volume

You can adjust the earpiece volume to one that is comfortable for you. You can adjust volume while on a call or from standby mode.

### To adjust the earpiece volume

- Do one of the following:
  - Press the volume buttons while on a call.
  - From standby mode, SMART KEY **menu**.
    - Press **p q r s 7** for Preferences.
    - Press **1** for Sounds.
    - Press **del 3** for EarpiecVol.
    - Select the volume level from 1 (lowest) to 9 (highest).
    - SMART KEY **ok**.

## Key Beep Sound

You can set the key beep, the sound you hear when pressing the keys, to either a tone or a click.

### To adjust the key beep sound

1. From standby mode, SMART KEY **menu**.
2. Press **p q r s 7** for Preferences.
3. Press **1** for Sounds.
4. Press **ghi 4** for KeyBeepSound.
5. Scroll to select tone or click.
6. SMART KEY **ok**.

## Key Beep Volume

You can adjust the volume of the key beep, the sound you hear when pressing the keys.

### To adjust the key beep volume

1. From standby mode, SMART KEY **menu**.
2. Press **p q r s 7** for Preferences.
3. Press **1** for Sounds.
4. Press **jkl 5** for KeyBeepVol.
5. Select the volume level from 1 (lowest) to 9 (highest) or Silent to turn the key beep off.
6. SMART KEY **ok**.

## **Key Beep Length**

You can set the length of the key beep, the sound you hear when pressing the keys.



### **Note**

The key beep length affects the DTMF tones used for playing tones over the network for automated phone services, such as voice mail or online banking. For more information, see *Playing tones*, page 20.

### **To set the key beep length**

1. From standby mode, **SMART KEY menu**.
2. Press **pqrs 7** for Preferences.
3. Press **1** for Sounds.
4. Press **mno 6** for KeyBeepLen.
5. Scroll to select one of the following:
  - normal – key beep is short and fixed in length
  - long – key beep sounds as long as you press a key
6. **SMART KEY ok**.

## **Mute Stereo**

While using the car kit, you can set this feature to automatically mute the stereo in your vehicle so you cannot hear it. This occurs when you receive incoming calls or press **Send** when making calls. Contact your service technician for more information on implementing this in your vehicle.

### **To mute the stereo**

1. From standby mode, **SMART KEY menu**.
2. Press **pqrs 7** for Preferences.
3. Press **1** for Sounds.
4. Press **pqrs 7** for Mute Stereo.
5. Scroll to select yes or no.
6. **SMART KEY ok**.

## **Display**

You can set the backlight, edit the banner, display the time, and set Auto Hyphen.

### **Backlight**

You can set the screen and keypad backlighting with this feature.

### **To set the backlight**

1. From standby mode, **SMART KEY menu**.
2. Press **pqrs 7** for Preferences.

3. Press **abc 2** for Display.
4. Press **1** for Backlight.
5. Scroll to select one of the following:
  - Always Off – The backlight is always off, which significantly *increases* battery life.
  - 7 Seconds – Turns the backlight off 7 seconds after the last key press.
  - 15 Seconds – Turns the backlight off 15 seconds after the last key press.
  - 30 Seconds – Turns the backlight off 30 seconds after the last key press.
  - Always On – The backlight is always on, which significantly *decreases* battery life.
6. SMART KEY **ok**.

## Banner

You can enter a banner or personal greeting, such as a company name or a personal reminder, that displays when you turn the phone on. There is a 12-character maximum.

### To edit the banner

1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **abc 2** for Display.
4. Press **abc 2** for Banner.
5. SMART KEY **edit**. See Entering alphanumeric characters, page 9.
6. SMART KEY **ok** to confirm banner changes.
7. Do one of the following:
  - SMART KEY **ok** to return to the previous menu.
  - SMART KEY **edit** to change the banner.

## Show Time

You can set the time format display using this feature.

### To show the time




1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **abc 2** for Display.
4. Press **def 3** for Show Time.
5. Scroll to select one of the following:
  - 12 hour – time displays in 12-hour format
  - 24 hour – time displays in 24-hour format
  - off – time does not display
6. SMART KEY **ok**.

## **Preferences Menu**

### **Auto Hyphen**

You can use this feature to automatically insert hyphens when you enter phone numbers.

#### **To set auto hyphen**

1. From standby mode, SMART KEY **menu**.
2. Press  for Preferences.
3. Press  for Display.
4. Press  for AutoHyphen.
5. Scroll to select yes or no.
6. SMART KEY **ok**.




### **Alerts**

You can set alerts that display messages on the screen (fade or service change) or provide a tone (mintue or new message).

#### **Fade**

The fade alert displays a message when the network drops a call.




#### **To set the fade alert**

1. From standby mode, SMART KEY **menu**.
2. Press  for Preferences.
3. Press  for Alerts.
4. Press  for Fade.
5. Scroll to select on or off.
6. SMART KEY **ok**.

#### **Minute**

The minute alert provides a tone 10 seconds before the end of every minute.

#### **To set the minute alert**

1. From standby mode, SMART KEY **menu**.
2. Press  for Preferences.
3. Press  for Alerts.
4. Press  for Minute.
5. Scroll to select on or off.
6. SMART KEY **ok**.

#### **Service Change**

The service change alert displays a message when SP coverage changes.

#### **To set the service change alert**

1. From standby mode, SMART KEY **menu**.

2. Press **(pqrs 7)** for Preferences.
3. Press **(def 3)** for Alerts.
4. Press **(def 3)** for Service.
5. Scroll to select on or off.
6. SMART KEY **ok**.

## **New Message**

The new message alert causes the phone to beep when you receive a new message.

### **To set the new message alert**

1. From standby mode, SMART KEY **menu**.
2. Press **(pqrs 7)** for Preferences.
3. Press **(def 3)** for Alerts.
4. Press **(ghi 4)** for New Message.
5. Scroll to select one of the following:
  - off – phone does not beep when a new message is received.
  - once – phone beeps once when a new message is received.
  - periodic – phone beeps periodically when a new message is received until you acknowledge receipt of message.
6. SMART KEY **ok**.

## **Calling**

You can set the Calling features to automatically answer the phone or redial a busy number. You can also set one-touch dial or any key answer.

### **Auto Answer**

You can set the number of times the phone rings before it automatically answers a call.

### **To set auto answer**

1. From standby mode, SMART KEY **menu**.
2. Press **(pqrs 7)** for Preferences.
3. Press **(ghi 4)** for Calling.
4. Press **(1)** for AutoAnswer.
5. Scroll to select one of the following:
  - off – phone does not automatically answer
  - after 1 ring – phone automatically answers after 1 ring
  - after 2 rings – phone automatically answers after 2 rings
  - car kit only 1 ring – phone automatically answers when installed in the car kit after 1 ring
  - car kit only 2 rings – phone automatically answers when installed in the car kit 2 rings

### Preferences Menu

6. SMART KEY **ok**. If you select an option other than “off,” while in standby mode “-Auto Answer-” displays in place of the time.

### Auto Retry

You can use this feature to automatically redial a busy number. The phone redials 5 times. If you change or lose service, Auto Retry resets to off.

#### To set auto retry

1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **ghi 4** for Calling.
4. Press **abc 2** for Auto Retry.
5. Scroll to select one of the following:
  - off
  - every 10 seconds
  - every 30 seconds
  - every 60 seconds
6. SMART KEY **ok**.

### One-Touch Dial

If you set one-touch dial to on, you can dial any of the 99 location numbers without pressing **Send**.

#### To set one-touch dial

1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **ghi 4** for Calling.
4. Press **def 3** for One-Touch Dial.
5. Scroll to select yes or no.
6. SMART KEY **ok**.

See One-touch dialing, page 21 for more information on one-touch dial.

### Any Key Answer

With this feature, you can press any key to answer an incoming call while in standby mode, except **Pwr** or **End**.

#### To set any key answer

1. From standby mode, SMART KEY **menu**.
2. Press **pqrs 7** for Preferences.
3. Press **ghi 4** for Calling.
4. Press **ghi 4** for AnyKeyAnsw.
5. Scroll to select yes or no.
6. SMART KEY **ok**.



**To silence the ringer when receiving an incoming call**

- Press **End**.

**Send PIN**

When making cellular AMPS (analog) calls, your SP may support use of a PIN (personal identification number) for verification before connecting the call. To enter a PIN, see *Entering PIN*, page 34. Contact your SP for more information.

**To set Send PIN**

1. From standby mode, **SMART KEY menu**.
2. Press **pqrs 7** for Preferences.
3. Press **ghi 4** for Calling.
4. Press **jkl 5** for Send PIN.
5. Scroll to select one of the following:
  - **never** – does not prompt you for a PIN and does not send PIN.
  - **prompt** – does prompt you for PIN after you enter the phone number.
6. **SMART KEY ok**.

## System Menu

|                |                                |
|----------------|--------------------------------|
| System         | Status                         |
|                | Force System Reacquisition     |
|                | Version                        |
| Service        | Known List                     |
| Provider       | Preferred List                 |
| Select         | Prohibited List                |
|                | Force SPS                      |
|                | Service Provider               |
|                | Territory                      |
| Mode Selection | AMS (Automatic Mode Selection) |
|                | Globalstar                     |
|                | Digital                        |
|                | Analog                         |
| Auto Pref      |                                |
| NAM Select     | Auto NAM                       |
|                | Set NAM                        |
|                | Set System                     |

### Status

This feature provides status for the state of the phone's Globalstar satellite antenna, security module, battery, memory, lock, and self-test:

- ☺ indicates a good condition or ready-for-use
- ☹ indicates a faulty condition or not-ready-for-use

#### To access status information

1. From standby mode, SMART KEY menu.
2. Press **tuV 8** for System.
3. Press **1** for Status:
  - Antenna Up – Properly rotated Globalstar satellite antenna.
  - Security – Valid security module properly inserted
  - Battery – Battery properly installed
  - Memory – Enough available memory
  - Unlocked – SP lock (if ☹ displays, contact your SP)
  - Self-test – phone self-test (if ☹ displays, contact your SP)
4. Press **Clr** or **End**.

### Force System Reacquisition

With this feature, the phone disconnects and attempts to acquire Globalstar satellite, cellular CMDA, or cellular AMPS service, depending on your mode selection (see Mode Selection, page 46).

#### To force the phone to reacquire service

- From standby mode, SMART KEY menu.

- Press **8** for System.
- Press **2** for ReAcquire.
- SMART KEY **ok** to initiate system acquisition.

## Version

This feature displays the software version number on your phone.

### To display the software version number

1. From standby mode, SMART KEY **menu**.
2. Press **8** for System.
3. Press **3** for Version.
4. Scroll to read the information.
5. Press **Clr** or **End**.

## Service Provider Select

This feature allows you to select SPs and force SP reselection. The following explains the different lists used to select SPs:

- **Known List** – Shows all known available SPs for selection to the lists. You cannot use a SP appearing on both the Preferred List and the Prohibited List until that SP is removed from the t.
- **Preferred List** – Shows order of priority for SPs, and always shows the home SP first highlighted on the screen. The number to the left of the SP name identifies the order of priority.
- **Prohibited List** – Shows preference for SPs in alphabetical order that you choose *not* to use. You cannot add the home SP to this list.

Changes to the lists do not affect registration until the phone attempts to reregister (when you turn it on). However, if you place the current registered SP on the Prohibited List, the phone will reregister.

### To access the Known List

1. From standby mode, SMART KEY **menu**.
2. Press **8** for System.
3. Press **4** for SP Select.
4. Press **1** for Known List. Scroll to view the Known List entries that display as follows:
  - SPs on the Preferred List are highlighted.
  - SPs on the Prohibited List are crossed out.
  - SPs on both the Preferred and Prohibited Lists are highlighted and crossed out.

The first entry and last entry are separated by a line.

### To view the Known, Preferred, or Prohibited Lists

1. From standby mode, SMART KEY **menu**.

### System Menu

2. Press **(tuv 8)** for System.
3. Press **(ghi 4)** for SP Select.
4. Press:
  - **(1)** for Known List.
  - **(abc 2)** for Prefr List.
  - **(def 3)** for Prohb List.
5. SMART KEY **view** for the SP's MCC (Mobile Country Code) and MNC (Mobile Network Code). If the SP is on:
  - the Preferred List, the preferred location number displays (Pref Loc).
  - the Prohibited List, "yes" displays (Prohib).
  - both the Preferred List and the Prohibited List, the preferred location number and "yes" displays.
6. SMART KEY **ok**.

#### To add to the Preferred or Prohibited Lists

1. From standby mode, SMART KEY **menu**.
2. Press **(tuv 8)** for System.
3. Press **(ghi 4)** for SP Select.
4. Press **(1)** for Known List.
5. Scroll to select an SP.
6. SMART KEY **edit**.
7. Press:
  - **(1)** for Preferred.
  - **(abc 2)** for Prohibited.
8. SMART KEY **ok**.

#### To edit the Preferred List

1. From standby mode, SMART KEY **menu**.
2. Press **(tuv 8)** for System.
3. Press **(ghi 4)** for SP Select.
4. Press **(abc 2)** for Prefr List.
5. Scroll to select an SP.
6. SMART KEY **edit**.
7. Press:
  - **(1)** for Reorder and scroll to move SPs.
  - **(abc 2)** for Delete.
8. SMART KEY **ok**.

#### To erase from the Preferred or Prohibited List

1. From standby mode, SMART KEY **menu**.
2. Press **(tuv 8)** for System.

3. Press **ghi 4** for SP Select.
4. Press:
  - **abc 2** for Prefr List.
  - **def 3** for Prohb List.
5. Scroll to select a SP.
6. SMART KEY **erase**.
7. SMART KEY **ok**.

#### To force service provider reselection

1. From standby mode, SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **ghi 4** for SP Select.
4. Press **ghi 4** for Force SPS.
5. SMART KEY **ok**. The phone registers according to the Preferred List.

### Service Provider

This feature displays the current SP's name, MNC (Mobile Network Code), and MCC (Mobile Country Code).

#### To access the SP information

1. From standby mode, SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **jkl 5** for SrvcPrvder.
4. Press **Clr** or **End**.

### Territory

This feature displays the current SP's MCC (Mobile Country Code) and MNC (Mobile Network Code).

#### To access the territory information

1. From standby mode, SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **mno 6** for Territory.
4. Press **Clr** or **End**.

### Mode Selection

The phone operates in Globalstar satellite, cellular CDMA (digital), or cellular AMPS (analog) mode, and you can select one of these modes or AMS (automatic mode selection). AMS means the mode is selected automatically based on your preference (see Auto Preference, page 47). If one of the modes is unavailable, it will not display on the screen.

## System Menu

### To select mode

1. *Shortcut:* From standby mode, press and hold **\* 1**. The following screen displays:



2. Press:
  - **1**, or wait momentarily, for AMS (automatic mode selection). The message “Initiate Automatic System Acquisition” displays.
  - **2** for Globalstar satellite mode. The message “Initiate Globalstar System Acquisition” displays.
  - **3** for Digital mode. The message “Initiate Digital System Acquisition” displays.
  - **4** for Analog mode. The message “Initiate Analog System Acquisition” displays.

## Auto Preference

You can set the phone to automatically acquire your preferred service for one or more modes. For cellular service, you choose between digital (cellular CDMA) or analog (cellular AMPS):

- Cell only – Acquire cellular service only.
- Gstar only – Acquire Globalstar satellite service only.
- Cell Pref – Attempt to acquire cellular service first and Globalstar satellite service last.
- Gstar Pref – Attempt to acquire Globalstar satellite service first and cellular service last.

### To set auto preference

1. From standby mode, press **SMART KEY** menu.
2. Press **8** for System.
3. Press **8** for Auto Pref.
4. Scroll to select one of the following:
  - Gstar Only – Acquire Globalstar satellite service only. Smart Key **ok**, and the phone returns to standby mode.
  - Cell Only – Acquire cellular service only. Smart Key **ok**, and the Cell Pref menu displays. Go to Step 5.
  - Cell Pref – Acquire cellular service first and Globalstar last. Smart Key **ok**, and the Cell Pref menu displays. Go to Step 5.
  - Gstar Pref – Acquire Globalstar satellite service first and either digital or analog mode last. Smart Key **ok**, and the Cell Pref menu displays. Go to Step 5.

5. If the Cell Pref menu displays, scroll to select one of the following:
  - Analg Only – Prefer analog only.
  - Digtl Only – Prefer digital only.
  - Digtl Pref – Prefer digital service over analog.
  - Analg Pref – Prefer analog service over digital.
6. Smart Key **ok**.

## NAM Select

This feature allows you to manage up to three different phone numbers, or NAMs (number assignment modules), if the phone is registered with multiple SPs. The NAMs are entered into the phone by your SP.

You can select the NAM you want to use by accessing these options:

- Auto NAM – Automatically switches NAMs, if appropriate, during system searches.
- Set NAM – Manually sets the NAM.
- Set System – Sets your system preference.

### To set Auto NAM

1. From standby mode, SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **wxyz 9** for NAM Select.
4. Press **1** for Auto NAM.
5. Scroll to select yes or no.
6. SMART KEY **ok**.

### To set the NAM

1. From standby mode and with Auto NAM set to “no,” SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **wxyz 9** for NAM Select.
4. Press **abc 2** for Set NAM.
5. Scroll to select the NAM.
6. SMART KEY **ok**.

### To set the system

1. From standby mode, SMART KEY **menu**.
2. Press **tuv 8** for System.
3. Press **wxyz 9** for NAM Select.
4. Press **def 3** for Set System.
5. Scroll to select one of the following:
  - Standard – Use home system, but if not found, use another system.
  - Home Only – Use only the home system.

***System Menu***

- Home Side – Use “A” system only if home system is “A” and “B” system only if home system is “B.”
- Roam Side – Use “B” system only if home system is “A” and “A” system only if home system is “B.”

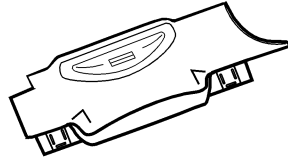


## Battery Care and Maintenance

Learn about battery care, battery charging, and battery removal in this section.

### Batteries

The phone comes with a standard rechargeable battery.



An extended rechargeable battery is also available. See Extended battery, page 56. (When you first open the phone's box, you may notice an empty tray, which is for the extended battery.)

The following is typical battery performance:

| Battery  | Service Type         | Talk Time | Standby Time |
|----------|----------------------|-----------|--------------|
| Standard | Globalstar satellite | 1 hour    | 5 hours      |
|          | cellular CDMA        | 3 hours   | 25 hours     |
|          | cellular AMPS        | 1 hour    | 7 hours      |
| Extended | Globalstar satellite | 1.7 hours | 8.5 hours    |
|          | cellular CDMA        | 5.1 hours | 42.5 hours   |
|          | cellular AMPS        | 1.7 hours | 11.9 hours   |

### Battery care and charging

Charge the battery immediately after purchasing the phone to maximize the talk and standby times. The battery can be recharged hundreds of times before you need to replace it. You do not need to completely discharge the battery before recharging it. See Low battery, page 51 for more information.

For best battery performance, follow these guidelines:

- Only use QUALCOMM batteries and chargers designed for your phone. Do not use any other battery or charger. You cannot overcharge QUALCOMM batteries with QUALCOMM chargers.
- To prevent a significant decrease in battery life, set the backlight option (see Backlight, page 37).

### **Battery Care and Maintenance**

- To prevent damage, do not charge the battery in temperatures less than +32°F (0°C) or greater than +140°F (+40°C). Do not discharge the battery in temperatures less than -4°F (-20°C) or greater than +140°F (+40°C).
- Do not use the battery charger in direct sunlight or in places with excessive humidity, such as the bathroom.
- Never dispose of the battery in a fire.
- Keep the metal contacts at the top end of the battery clean.
- Do not try to disassemble or short circuit the battery.
- Recharge the battery if the phone has not been used for several months




- Do not store batteries in places where temperatures are below -22°F (-30°C) or above +140°F (+60°C).

### **Battery chargers**

Charge the batteries with the AC wall charger, universal travel charger, or cigarette lighter adapter (see Accessories, page 56). You do not need to completely discharge the battery before recharging it.

The universal travel charger allows you to charge the standard or extended batteries while attached to a phone whether the phone is turned on or off. You can also charge another battery at the same time.

After you connect the phone to one of the chargers, check the charging status:

- If the battery is charging, a message displays and the bars on the battery indicator  flash in sequence.
- When charging is complete, a message displays and  flashes.
- If the battery is not connected, no message displays and  flashes.

The following is the typical charge time to 90% charge level for the universal travel charger, cigarette lighter adapter, and AC wall charger:

- Standard battery – 1-1/2 hours
- Extended battery – 2-1/2 hours

### **Low battery**

The battery charge level indicator is shown at the top right of the screen and ranges between four diagonal bars (full charge) to one bar (minimal charge) to no bars and blinking (battery disconnected or no charge left):



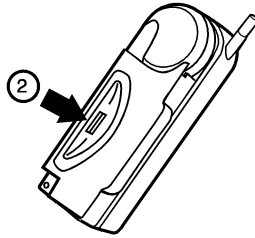
The phone alerts you when the battery is low:

- The battery indicator flashes.
- The phone beeps three times (if you are on a call, the phone continues to beep every minute).
- The message “Low Battery!” displays on the screen.

If the battery level gets too low, the phone turns off and loses any function in progress. Before turning off, the phone alerts you with five beeps and a message.

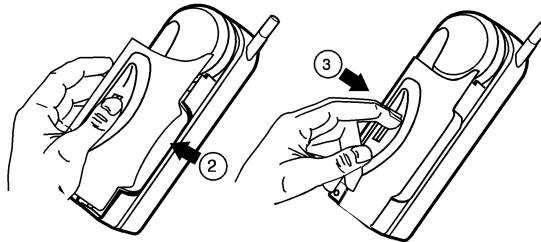
### **Battery removal**

1. Turn the power off to avoid losing data.
2. Slide the battery's release button in the direction of the arrow to release it from the phone.



### **Battery replacement**

1. If a battery is already installed, turn the power off to prevent losing data and remove it.
2. Insert the side of the new replacement battery at a 45° angle away from the Globalstar satellite antenna.
3. Press the side of the battery near the Globalstar satellite antenna until it locks into place.



In this section, learn about safety issues involved with using a portable phone and how best to avoid dangerous conditions.

### **Radio frequency energy**

Your phone is a radio transmitter and receiver. When turned on, it receives and sends radio frequency (RF) energy. The system handling your call controls the power level at which your phone transmits. The power level can range from 0.01 watt to 0.40 watt.

The design of the QUALCOMM Globalstar GSP1600 Tri-Mode User Terminal complies with the updated (1992) ANSI standard for safe levels of human exposure to RF energy. To reduce RF exposure, you can limit the duration of your calls.

### **Driving safety**

Talking on the phone while driving is extremely dangerous and is illegal in some places. Remember, safety comes first.

Check the laws and regulations on the use of portable phones in the areas where you drive. Always obey them.

If using the phone in a vehicle:

- Use the QUALCOMM Globalstar Hands-Free Car Kit.
- Secure the phone in your vehicle to prevent damage to the phone and personal injury in the event of an accident.
- Pull off the road and park before using the phone if driving conditions so require.
- Give full attention to driving.

### **Effect on other electronic devices**

Most modern electronic equipment is shielded from RF energy. However, RF energy from portable telephones can affect improperly installed or inadequately shielded electronic systems in cars (such as electronic fuel injection, electronic cruise control, electronic anti-skid brakes). These systems may interfere with the operation of your phone. Likewise, your phone may interfere with the operation of these systems.

To determine whether the electronic systems in your car are properly installed and shielded, check with the automobile manufacturer or the manufacturer of after-market equipment installed in your car.

If you use personal medical devices, such as a pacemaker or hearing aid, consult the manufacturer to determine if the device is adequately shielded from external RF energy.

Turn the phone off when in health care facilities and request permission before using the phone near medical equipment.

## **Using the phone on airplanes**

Follow these regulations regarding aircraft and the phone:

- To prevent interference with aircraft navigation systems, regulatory agencies in your area, such as the United States Federal Communications Commission (FCC), prohibit the use of your phone while the plane is moving.
- Regulatory agencies in your area, such as the United States Federal Aviation Administration (FAA), require that you obtain permission from a crew member to use your phone while the plane is stopped at the gate.



### **Warning**

**Turn the phone completely off before boarding any aircraft (do not leave it in standby mode). Do not use the phone when the plane is in motion.**

## **Using the phone in blasting areas**

Construction crews often use remote control RF devices to set off explosives.



### **Warning**

**To avoid setting off a charge and causing serious injury to yourself or others, turn off your phone in blasting areas or in areas posted: "Turn off two-way radio."**

## **Potentially explosive areas**

Turn off your phone in areas with a potentially explosive atmosphere. It is rare, but your phone or its accessories could generate sparks, causing an explosion or fire that results in bodily injury or death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include:

- Any area where you are advised to turn off your vehicle engine
- Fueling areas such as gas stations and boat docks
- Below deck on boats
- Fuel or chemical transfer or storage facilities
- Areas where the air contains chemicals or particles, such as grain, dust, or metal powders

Do not transport or store flammable gas, liquid, or explosives in the compartment of your vehicle that contains your phone or accessories.

***Safety Issues***

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 United States standard, contact:

National Fire Protection Assoc.  
Attn: Publication Sales Division  
One Batteymarch Park  
Quincy, MA 02269  
U.S.

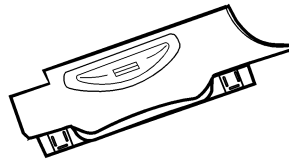
## Accessories

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The optional accessories described in this section are available from your SP.

### Extended battery

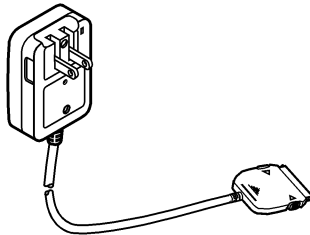
An extended rechargeable battery offers approximately twice as much talk and standby time as the standard battery. For more information on batteries, see Battery Care and Maintenance, page 50.



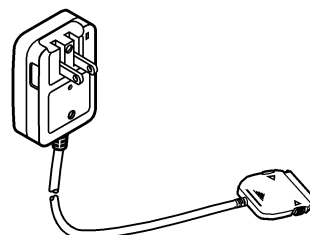
### AC wall charger

The North American and European version AC wall chargers supply power to the phone and fast charge the battery while attached to the phone. Both chargers operate at 110V and 220V. A green light indicates that the charger is plugged in properly.

**North American wall charger**



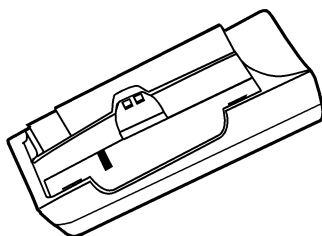
**European wall charger**



## Accessories

### Universal travel charger

The universal travel charger allows you to charge either the standard or extended battery. You can charge a battery attached to the phone and, at the same time, one detached from the phone that is installed in the universal travel charger.

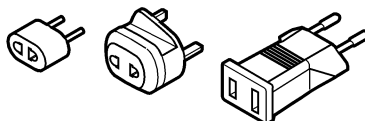


Three optional plugs are available to adapt the universal travel charger and AC wall charger for use in different countries.



#### Note

Be sure to use the plug appropriate in the area where you are using the chargers and phone.



There are two sets of lights on the charger:

- Single green light – charger is plugged in properly.
- The multicolored light indicates as follows:
  - Solid Yellow – charging
  - Flashing Yellow – charging, but suspended for a short time
  - Solid Red – no charging due to excessive temperature or undervoltage
  - Flashing Red – no charging due to battery failure
  - Green – charging is complete

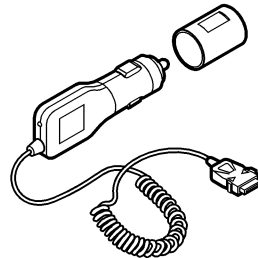
### Cigarette lighter adapter

The cigarette lighter adapter supports both U.S. and European vehicles. (For European vehicles, simply insert the adapter into the sleeve.)

Plug the adapter into your vehicle's cigarette lighter to supply power to the phone (with or without the battery attached). You can also fast charge the

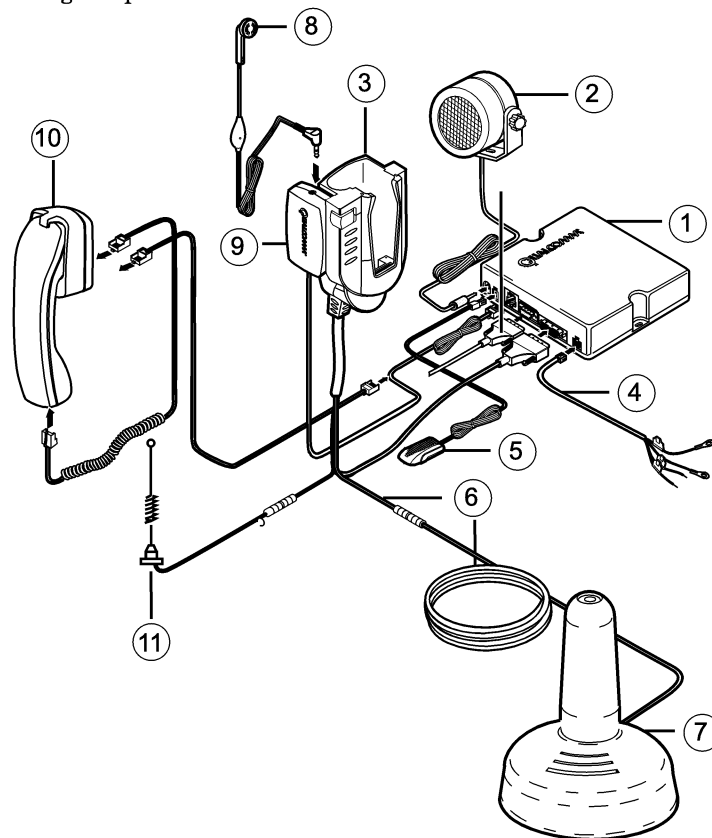


battery at the same time. A green light indicates that the adapter is plugged in properly.



## Hands-free car kit

With the QUALCOMM Globalstar Hands-Free Car Kit, you can adapt your phone for hands-free operation in your vehicle. The car kit consists of the following components:



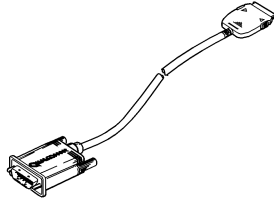
### **Accessories**

- 1 – Globalstar Electronic Module (GEM)
- 2 – Hands-Free Speaker
- 3 – Hands-Free Car Kit Cradle
- 4 – Car Interface cable
- 5 – Hands-Free Microphone
- 6 – ODU cables
- 7 – Outdoor Unit (ODU)
- 8 – Privacy Headset (optional)
- 9 – Privacy Headset Adapter (optional)
- 10 – Privacy Handset (optional)
- 11 – Cellular antenna (not included)

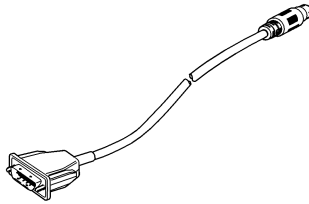
For more information, see the *Qualcomm Globalstar Hands-Free Car Kit Installation / User Guide*.

### **Data cable**

A five-foot long data cable allows you to connect your phone directly to IBM PC-compatible computers (RS-232 compatible serial port).

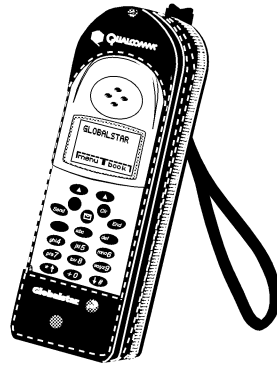


An adapter for the RS-232 cable allows you to connect your phone directly to Apple Macintosh computers.



## **Protective leather case**

A protective leather case with a wrist strap protects your phone from scrapes and scratches.



## ***Troubleshooting***

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TBD

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