

**User's Manual**

for

**BellSouth BS2440**

***2.4GHz Digital Spread Spectrum Cordless  
Telephone***

**To fully enjoy all the benefits of this product,  
we ask that you review the information  
contained in this manual**

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## **Important Safety Instructions**

BEFORE USING YOUR TELEPHONE EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSON, INCLUDING THE FOLLOWING

1. **Read and understand all instructions.**
2. **Follow all warnings and instructions marked on the product.**
3. **Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.**
4. **Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.**
5. **Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.**
6. **Slots and openings in the cabinet and the back or bottom are provided for ventilation. To protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.**
7. **This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.**
8. **Do not allow anything to rest on the power cord. Do not locate this product where the cord will be damaged by persons walking on it.**
9. **Do not overload wall outlet extension cords, as this can result in the risk of fire or electric shock.**
10. **Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on this product.**
11. **To reduce the risk of electric shock, do not disassemble this product. Instead, when some repair work is required, take the unit to a qualified technician. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.**
12. **Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:**
  - a. **When the power supply cord or plug is damaged or frayed.**
  - b. **If liquid has been spilled into the product.**
  - c. **If the product has been exposed to rain or water.**
  - d. **If the product does not operate normally by following the operating instructions. Adjust only those controls, that are covered by the operating instructions because improper adjustment of other**

controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

- e. If the product has been dropped or cabinet has be damaged.
- f. If the product exhibits a distinct change in performance.

- 13. **Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.**
- 14. **Do not use the telephone to report a gas leak in the vicinity of the leak.**

### **SAVE THESE INSTRUCTIONS**

#### **Safety Instuctions for Handset Battery Pack**

##### **CAUTION:**

Danger of explosion if battery is incorrectly replaced. Use only an approved battery pack in the handset of your BS2440 Cordless Telephone. To reduce the risk of fire or injury, always do the following when replacing, discarding, or charging battery, When handling the batteries, be careful not to short the battery with conducting materials such as rings, bracelets, and keys. The Battery or conducting material may overheat and cause burns. Use only the following type and size of battery pack:

FOR HANDSET UNIT:

GP60AAAH3BMX 3.6V 600mAh GPI INTERNATIONAL LIMITED

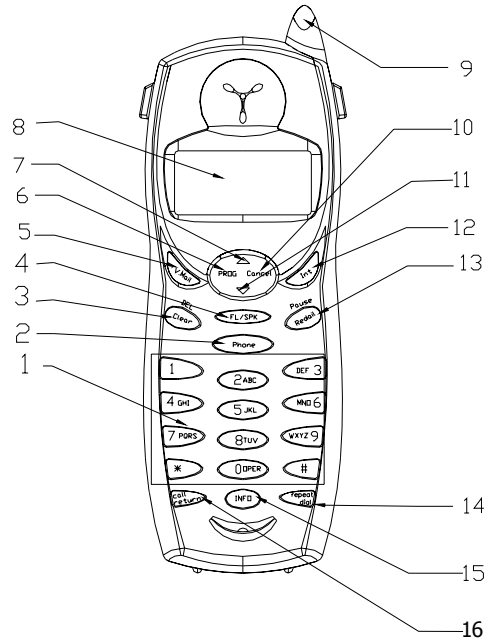


**CONTAINS NICKEL-METAL HYDRIDE BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY**

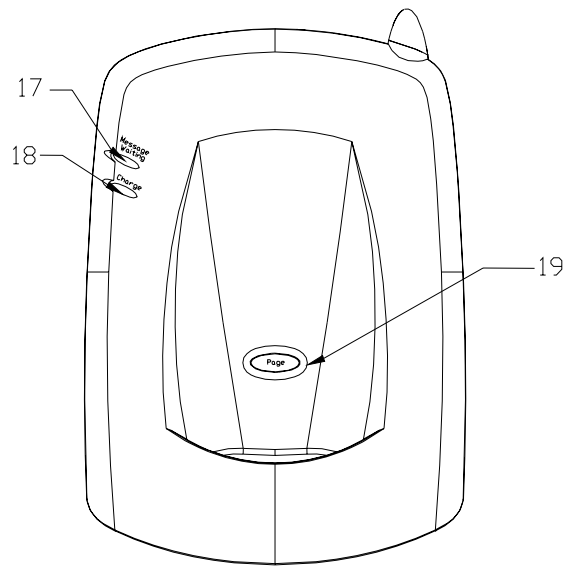
- 1. **Do not dispose of the battery in a fire. The cell may explode. Check with local codes for possible special disposal instructions.**
- 2. **Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.**
- 3. **Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery or conductor may overheat and cause burns.**
- 4. **Charge the batteries provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual.**
- 5. **Observe proper polarity orientation between the battery(ies) and battery charger.**
- 6. **Do not mix old and new batteries in this product.**
- 7. **Do not mix batteries of different sizes or from different manufacturers in this product.**

### **SAVE THESE INSTRUCTIONS**

## Handset and Base Layouts

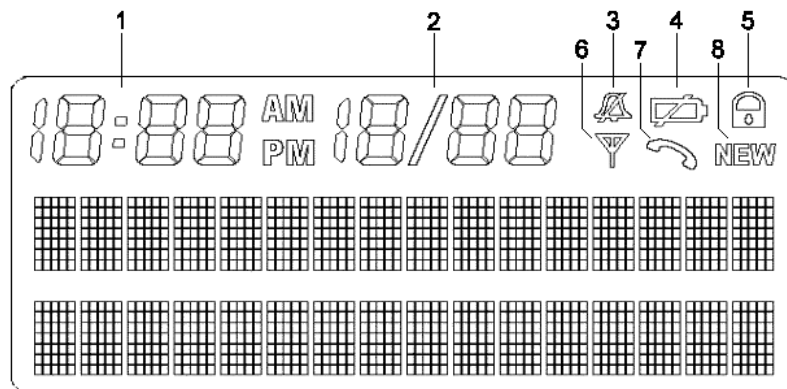


- |   |                          |    |                                 |
|---|--------------------------|----|---------------------------------|
| 1 | Dialing Keys (0-9; *, #) | 9  | Message Waiting Indicator (LED) |
| 2 | Phone ON/OFF             | 10 | Cancel                          |
| 3 | Clear/Delete             | 11 | Volume ▼ / Scroll ▼             |
| 4 | Flash/Speakerphone       | 12 | Intercom                        |
| 5 | Voice Mail               | 13 | Redial/Pause                    |
| 6 | Program                  | 14 | Repeat Dial (Pay-Per-Use)       |
| 7 | Volume ▲ / Scroll ▲      | 15 | Directory Info. (Pay-Per-Use)   |
| 8 | Display (LCD)            | 16 | Last Call Return (Pay-Per-Use)  |



- 17 Message Waiting/In Use Indicator
- 18 Charge Indicator
- 19 Page

**LCD Display**

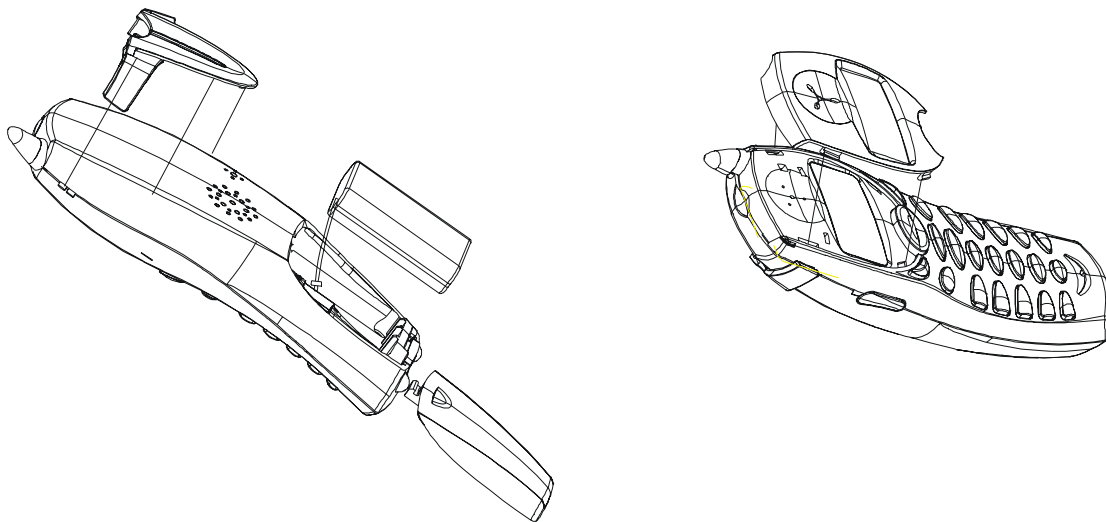


1. Caller ID Time
2. Caller ID Date
3. Ringer OFF icon (displayed when user turns the ringer off)
4. Low battery icon (on only if battery voltage is low)
5. Key lock icon (displayed when user locks the keypad)
6. In Service icon (displayed when Handset is 'in range' of the Base)
7. Off Hook icon (displayed when Handset is on an external or intercom call)
8. NEW icon (displayed when new Caller ID records have been received)

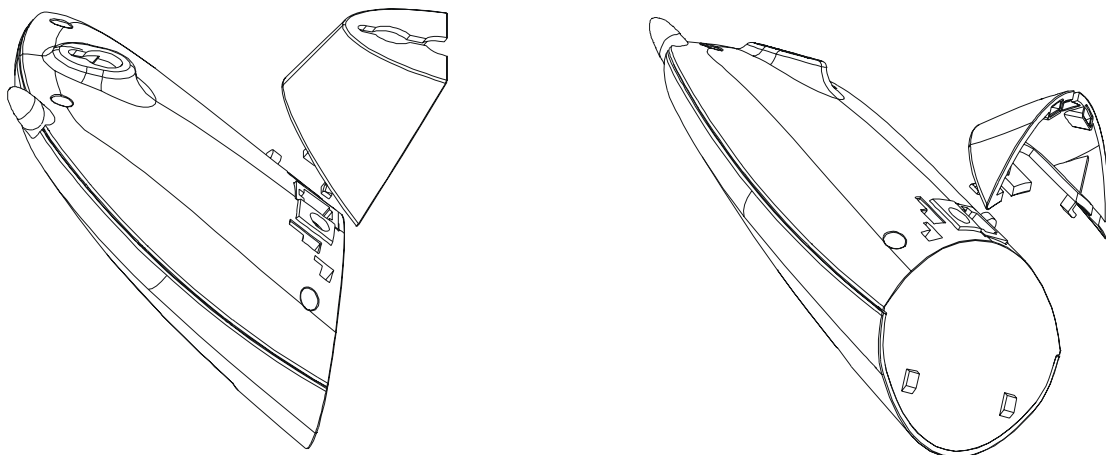
## **Getting Started**

### **Install and Charge the Battery Pack**

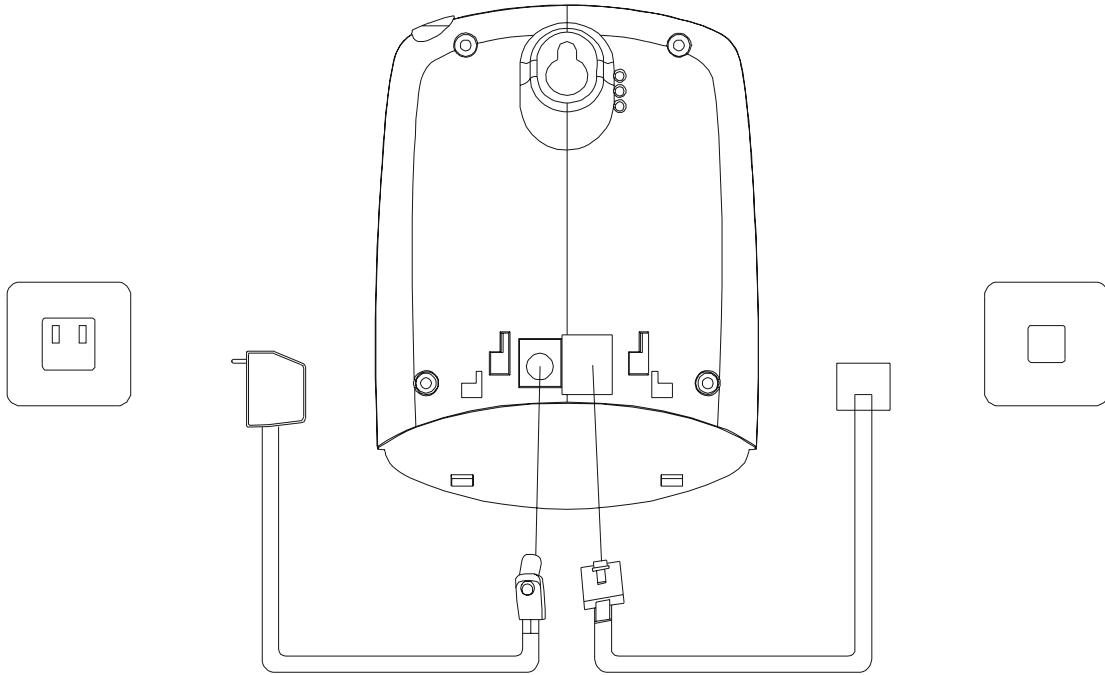
- 1** Open the battery compartment by sliding the cover down.
- 2** Plug the Battery Pack connector into the Handset socket, then place the battery pack and wires in the compartment.
- 3** Slide the battery cover back into place.



- 4** (Optional) Attach the belt clip and change color face plate, if desired.
- 5** Choose the appropriate mounting bracket. One is for tabletop installations. The bracket with the round hole is for wall mounting. **You must use one of the brackets.** Thread the telephone cord and DC power cord through the large opening in the bracket. Plug the two cords into the corresponding jacks on the bottom of the Base.



- 6 Snap the bracket into place on the back of the Base. If you are using the tabletop bracket, run the two cords through the channel at the back of the bracket. If you are wall mounting the Base, carefully line up the slots on the wall mount bracket with the studs on the telephone wall plate, and carefully mount the telephone on the wall.
- 7 Connect the power supply to a live outlet. Make sure the outlet is not controlled by a switch. **DO NOT** connect the telephone line cord to the phone jack until the Handset is fully charged.



- 8 Place the Handset in the Base cradle. The Handset and Base communicate with each other automatically. This is the **Registration** process, and it may take up to 60 seconds.
- 9 Allow the Handset to charge for at least **10 hours**. The **CHARGE** indicator on the Base will glow while the Handset is charging.

**Basic Operation**

With the Handset idle (on hook), and the battery pack having at least a minimum charge, it will display:

READY

When you name your Handset (see **Handset Naming**), it will replace ‘READY’.

**Answering Calls**

If auto answer is disabled, press **PHONE**, or any numerical key (**0 to 9**), or \* or # .

If auto answer is enabled, the incoming call is answered by removing the Handset from the charger. If the Handset is not cradled, simply press **PHONE, 0 – 9, \* or #**.

You can end your call by pressing:

- **PHONE**, or
- Place the Handset in the charger

**Display presentation for incoming calls:**

An incoming call without caller ID:

EXTERNAL CALL

If your local service provider sends the caller ID information, it is shown in the display instead of ‘external call’. The caller ID either shows the calling number alone:



987-654-3210

or, in addition to that, caller's name and time/date information.

The name, which will be shown in the second line, may either come from the service provider or from the Phone Book. If the CID package sent by the service provider contains name information, this name will be shown. However, if the calling number matches a number you have programmed in the Phone Book, the name associated with this number is shown instead; i.e. the Phone Book name takes precedence.

Time/date information is shown, if it is contained within the information package sent out by the service provider. The time/date information is shown in the first line.

10:20<sup>AM</sup> 6/01  
SOMEBODY  
987-654-3210

The Caller ID information may be blocked. The Handset will display calls with blocked name/numbers as indicated below:

Private number:

SMITH  
PRIVATE NUMBER

Out of area number:

SMITH  
UNKNOWN NUMBER

Private name:

PRIVATE NAME  
98-765-4321

Out of area name:

UNKNOWN NAME  
98-765-4321

If both name and number are blocked:

Private name & number:

PRIVATE NAME  
PRIVATE NUMBER

Out of area name & number:

UNKNOWN NAME  
UNKNOWN NUMBER

### **Display presentation during an ongoing call:**

When answer the call, the display changes depending on the type of call. The different presentations are:

Call without Caller ID:

TALK 1:32:56  
EXTERNAL CALL

Call with caller ID (number only):

TALK 1:32:56  
987-654-3210

If the Caller ID number is blocked (and no name), the incoming call is shows as:

TALK 1:32:56  
PRIVATE NUMBER

or

TALK 1:32:56  
UNKNOWN NUMBER

Call with Caller ID (number and name or an associated number in the Phone book):

TALK 1:32:56  
SOMEBODY

Calls with blocked name in Caller ID is shown as:

TALK 1:32:56  
PRIVATE NAME

or

TALK 1:32:56  
UNKNOWN NAME

The number '**1:32:56**' represents the elapsed time of your call, in hours, minutes and seconds.

Key entries during a call will replace the number/name in the second line, and the digits are left-truncated in case the entered number exceeds 16 digits.

### **Display presentation after call is terminated**

When the call is terminated, the current screen is maintained for 5 seconds before the phone returns to idle presentation. This current display is interrupted in the event of a key press or an incoming call.

### **Making Calls**

#### **Making Calls – Pre-Dialing**

You can enter the phone number before pressing **PHONE** to get a dial tone:

1. Enter the number. It will be displayed on the second line. In case the number exceeds 16 digits, it continues in the third line. You may enter a 3-second **pause** in the sequence by pressing **REDIAL**. It is indicated by the character "P". The number can be a maximum of **24** digits, including pauses.

1234567890123P96  
322300

2. Check if the number is correct. You can backspace by pressing **CLEAR**. The entire number is cleared by holding down **CLEAR**.
3. Press **PHONE** to dial the displayed number.

TALK 0:00:01  
7890123P96322300

#### **Making Calls – Post-Dialing**

1. Press **PHONE**, and listen for dial tone. The Call Timer starts running and 'EXTERNAL CALL' is shown in the display:

TALK 0:00:01  
EXTERNAL CALL

2. Enter the phone number, which replaces the 'EXTERNAL CALL' in the display:

TALK 0:00:02  
9876543210

The display shows the digits of the number as they are entered. The first digit is entered in the left-hand side of the second line.

#### **Ending your outgoing call**

Your outgoing call is terminated by either pressing:

- **PHONE**;
- or by placing the Handset in the charger.

After terminating your call, the Call Timer stops running, and 'ENDED' is shown in the first line of the display. The Handset returns to the idle screen after 5 seconds. **If the handset is put on the cradle, it returns to idle screen immediately.**

ENDED 0:01:15  
9876543210

**NOTE:**

If the Handset connection is lost, (e.g. the Handset is out of range of the Base for at least 5 seconds), the Base Unit automatically goes on-hook (terminates the call), and the Handset will emit an **out of range** tone as well as display **'OUT OF SERVICE'**.

## **Call Waiting / Call Waiting Deluxe**

### **Call Waiting**

When you receive a Call Waiting alert tone in the earpiece (or Handset Speakerphone), the 'waiting' call can be answered by pressing the **FLASH** key. Pressing **FLASH** clears the second line in the display. If the 'waiting' call is not answered, the display will return to normal ongoing call presentation after 15 seconds.

### **Call Waiting Deluxe (Call Waiting ID)**

When the Handset is in conversation, and you receive Caller ID information, a special 'Call Waiting Deluxe' menu becomes available.

From this menu the user has several options.

The options in the menu will change dependent of the state of the current call:

**Call Waiting state** (when you are in conversation and receive Call Waiting ID information):

- Forward call (to voicemail, for example)
- Play an Announcement (that you are currently on another call)
- Drop the incoming call
- Answer call (terminating the first call)
- Put current call on hold while answering the 'call waiting' call
- Conference

**Held Call state** (conversation with call on hold):

- Return to the call on hold
- Drop the call on hold
- 3-way conference with both callers

**Conference Call state:**

- Drop First call
- Drop Last call

When you receive Call Waiting ID, the 'Call Waiting Deluxe' menu can be accessed by pressing **PROG**.

Here is an example of the display after pressing **PROG** during a Call Waiting ID event:

FORWARD CALL  
ANNOUNCEMENT

Use the **▲** and **▼** scroll keys to highlight the desired action.

Confirm the action by pressing **PROG**.

The Handset then returns to the normal call display.

The "Call Waiting Deluxe" menu can be aborted by pressing **CANCEL**.

**For more information on Call Waiting options, contact BellSouth Customer Support.**

## **Redial**

The last **5** called numbers are stored in redial memory.

With the Handset idle (on hook), press **REDIAL** to find the desired phone number. An error tone is emitted in

the event redial memory is empty. Press **PHONE** to dial the displayed number. **-OR-**  
Press **PHONE** and listen for dial tone. Now, press **REDIAL** to scroll through the list of recently dialed numbers. Dial the displayed number by pressing **PROG**.

### **Muting the Handset Microphone**

It is possible to mute the microphone during a conversation by pressing the **CLEAR/DEL** key. With the microphone muted, you can hear the other party, but they can't hear you. Return to the two-way conversation by pressing **CLEAR/DEL** again.

The Mute function is automatically cancelled when you hang up (go on hook).

Periodic beeps in the earpiece and a text message in the display indicate that the microphone is muted:

TALK 1:35:06 MIC MUTE
--------------------------

### **Page**

The page call function is used as an aid to locate the Handset.  
Press **PAGE** on the Base Unit to page the Handset.

### **Using the 'Hands-Free' Handset Speakerphone**

The hands-free operation can be switched on and off while in conversation. Using the Handset Speakerphone, you can place the Handset on a table talk hands-free. It's a portable speakerphone!

With the Handset either idle or active, enter hands-free operation by holding **FLASH** down for 2 seconds.

While in conversation, the hands-free function can be enabled or disabled by holding **FLASH** down for 2 seconds.

The hands-free mode is automatically deactivated when you terminate your call.

**NOTE:** The speakerphone is not accessible while the Handset is in the charger.

### **Pay-Per-Use (PPU) Keys**

There are 3 Pay-Per-Use keys, located on the bottom row of the Handset. There are fees associated with use of these keys. Contact **BellSouth Customer Support** for details.

The 3 PPU keys are:

- a) Last **Call Return**---- \*69
- b) **Repeat Dial**---- \*66
- c) **Information**----- 411

To use any of these PPU features:

- 1) Press the desired **PPU** access key.
- 2) The phone automatically goes off-hook and the number is dialed.

**-OR-**

- 1) Press **PHONE**.
- 2) Press the desired **PPU** access key

### **Voice Mail**

#### **Voice Mail access from the Handset**

To dial the voicemail access number:

- 1) Press the **V. Mail** access key.
- 2) The phone automatically goes off-hook and the number is dialed.

### Storing the Voice Mail access number in the Handset

- 1) Press and hold the **V. Mail** access key for more than 1 second (you will hear a beep).
- 2) Enter telephone number.
- 3) Confirm by pressing the **V. Mail** access key again (you will hear a confirmation beep).

To clear the number:

- 1) Press and hold the **V.Mail** access key for more than 1 sec.(you will hear a beep).
- 2) Press **V. Mail** again to confirm. The Voice Mail access number has been deleted.

### Handset Menu and Programming

1. Press **PROG** key to enter the menu.
2. Use the **UP ▲** / **DOWN ▼** keys to scroll through the menu items. By pressing **▼** at the last menu item, you will scroll to the first menu item; and by pressing **▲** at the first menu item, you will scroll to the last menu item.
3. Press **CANCEL** to step back one level in the menu
4. Press **PROG** to choose the menu item shown in the first line of the display.
5. Enter setting/level number. A key click is heard when you enter a valid setting/level number.
6. Confirm setting/level by pressing the **PROG** key. The Handset automatically returns to the previous menu level.

In case the Handset is in the menu mode when a call arrives, the phone automatically aborts the menu and receives the incoming call. The menu is not accessible during an ongoing call.

If there are no key presses for 30 seconds while in the menu mode, the Handset automatically returns to an idle state.

The menu is accessed by pressing the **PROG** key. An overview of the menu structure is shown in Figure 1.1.

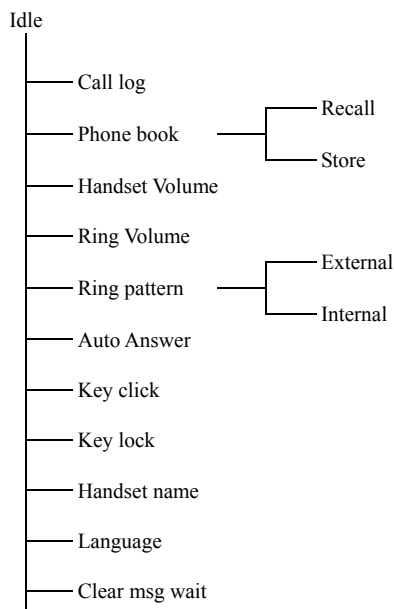


Figure 1.1 Menu structure.

## Call Log (Caller ID)

All incoming calls with a valid Caller ID provided phone number are stored in the call log. Name and time/date information is also stored in the call log if your service provider sends it.

The number of entries stored in the call log is indicated when the Handset is in idle mode:

```
READY
1 CALL
```

The number of unanswered calls (**NEW**), if any, is indicated:

```
READY
2 CALLS/1 NEW
```

The new call indication is removed when the call log has been reviewed.

The call log is entered via the menu, as described below or by pressing ▼ in idle mode, whereby the Handset jumps directly to the call log.

The call log is reviewed as follows:

1. **PROG** to enter the menu.

```
>CALL LOG
PHONE BOOK
```

2. **PROG** to enter the Call Log sub-menu.

3. The caller's name is shown in the second line of the display, and the number in the third line. If time and date information is contained in the CID and there are three lines in the display, it is shown in the top line.

```
7:48PM 4/07 NEW
SOMEBODY
987-654-3210 3
```

The name contained in the received CID is replaced by the name in the Phone Book, if the Phone Book contains a matching number; i.e. the Phone Book name takes precedence.

4. Scroll through the call log entries using the ▼ and ▲ keys.

```
11:02AM 11/27
ANOTHERPERSON
012-345-6789 14
```

The following actions are possible from the call log:

● **Dialing** the caller displayed by pressing the **PHONE** key.

● **Deleting** the caller displayed by pressing the **CLEAR** key.

If you press the **DELETE** key, you will be asked '**DELETE?**'; you can either accept deletion by pressing **PROG** (=yes) or cancel it by pressing **CANCEL** (=no).

```
CALL LOG
DELETE?
```

The phone returns to call log review.

● You can delete all entries in the call log by pressing and holding **CLEAR**. You will then be asked '**DELETE ALL?**' Accept the deletion by pressing **PROG** (= yes) or cancel it by pressing **CANCEL** (= no).

```
CALL LOG
DELETE ALL?
```

**Note:** '**DELETE ALL**' will only function when there are no **NEW** (unreviewed) records.

By selecting **PROG**, the phone displays "CALL LOG EMPTY" for 5 seconds and returns to main menu after deleting. By selecting **CANCEL**, the phone returns to the Call Log.

● **Storing** the CID information displayed into the Phone Book by pressing the **PROG** key. Before the name and number is transferred to the Phone Book, you can edit the number and name. The phone returns to Call Log review.

**Note:** CID information without a valid phone number cannot be transferred to Phone Book memory.

- Exit the Call Log review by pressing the **CANCEL** key.

Two info messages are displayed together with the Caller ID data:

- **'NEW'** icon on the right hand side of the top line indicates that the call has not previously been reviewed. The **'NEW'** icon is cleared when scrolling to the next entry or when leaving the Call Log. The maximum length of the name shown in the second line is 16 characters. If the name is longer, it is right truncated.
- A number in the right hand side of the third line shows the call log number - 1 is the first (oldest) received call. The maximum length of the number shown in the third line is 16 characters. If the number is longer, it is left truncated.

The incoming calls are sorted by the order of arrival; the latest is shown first. A number is only contained once in the list. A new call from a caller that is already contained in the log removes the old entry and inserts the new call. All calls with a blocked number are stored as individual calls. Your Handset stores **20** records.

If the call log is full, the oldest entry is deleted to make room for the new call. If the call log is empty when the user tries to enter to Call Log review, a message **'CALL LOG EMPTY'** is displayed and the phone returns to the main menu after 5 sec.

CALL LOG EMPTY
----------------

It is possible to change the number format in the call log before storing the name/number in the Phone book or dialing the caller. Pressing the **REDIAL** key toggles the number format. The available number formats depend on the received number. The table below shows the possible selections and the order as a function of the incoming number format. The number format is changed by truncating or by adding the digits as described in the table 1.1.

Incoming format	Dialable/storable formats and selection sequence
11	1xxx-yyy-yyyy → xxx-yyy-yyyy → 1-yyy-yyyy → yyy-yyyy
10	xxx-yyy-yyyy → 1-yyy-yyyy → yyy-yyyy → 1xxx-yyy-yyyy
8	1-yyy-yyyy → yyy-yyyy
7	yyy-yyyy → 1-yyy-yyyy

Table 1.1 Number format selection.

yyy-yyyy: basic number

xxx: area code

## **Phone Book**

- You can store up to **50** Phone book entries, which includes names and phone numbers.
- The Phone book entries are sorted and presented in alphabetical order.
- It is possible to abort an initiated Phone book operation by double-clicking the **PHONE** key.

### **Characters**

Names are entered using the numerical keys. Characters are generated by multiple key presses (see the table below). The cursor moves to the next position if another numerical key is pressed or by pressing the **▲** key. The last entered character is deleted by pressing **CLEAR** or **▼**. The entire name is cleared with a long **CLEAR** key press.

Key	Character versus key press numbers								
	1	2	3	4	5	6	7	8	9
<b>1</b>	space	1							
<b>2</b>	A	B	C	2	a	b	c		
<b>3</b>	D	E	F	3	d	e	f		
<b>4</b>	G	H	I	4	g	h	i		
<b>5</b>	J	K	L	5	j	k	l		
<b>6</b>	M	N	O	6	m	n	o		
<b>7</b>	P	Q	R	S	7	p	q	R	s
<b>8</b>	T	U	V	8	t	u	v		
<b>9</b>	W	X	Y	Z	9	w	x	Y	Z
<b>0</b>	0								
<b>*</b>	*	?	!	/	(	)			
<b>#</b>	#	'	,	-	.	&			

Table 1.2 Character guide.

### Phone Book Operation

The Phone Book is entered via the menu, as described below.

The Phone book is accessed as follows:

1) **PROG**, to enter the menu.

```
>CALL LOG
PHONE BOOK
```

2) **DOWN (▼)**

```
>PHONE BOOK
HANDSET VOLUME
```

3) **PROG**, to enter the Phone Book sub-menu.

```
>RECALL
STORE
```

**HINT: With Handset idle (on-hook), press ▲ to go directly to Phone Book mode.**

From the Phone Book **RECALL** menu it is possible to:

- Search for an entry and dial the number. If no records match the search criteria, the closest alphabetic match is displayed.
- Edit an entry.
- Delete an entry.

From the Phone Book **STORE** menu it is possible to:

- Enter a new entry in the Phone Book.

When attempting to search, edit or delete entries in an empty Phone Book, the Handset will display:

```
PHONEBOOK EMPTY
```

### How to use your Phone Book:

#### Searching for and dialing from the Phone Book:

1) Press **PROG** to enter the menu; press ▼ to put **PHONE BOOK** on the top line of the display; press **PROG** again; with "RECALL" in the first line, press **PROG** again.

```
ALICE
2278238989
```

2) Scroll through the Phone book entries using ▼ or ▲; **OR** enter the first character of the desired name and continue searching using the **UP/DOWN** keys.

**R**

```
ROBERT
9898327822
```

3) Press **PHONE** to dial the number.



TALK 0:00:01  
9898327822

**Editing a Phone Book entry:**

1) Press **PROG** to enter the menu; press **▼** to put **PHONE BOOK** on the top line of the display; press **PROG** again; with "**RECALL**" in the first line, press **PROG** again.

ALICE  
2278238989

2) Scroll through the Phone book entries using **▼** or **▲**; **OR** enter the first character of the desired name and continue searching using the **UP/DOWN** keys.

**R**

ROBERT  
9898327822

3) Press **PROG** to enter number edit mode and enter correct number. Press **CLEAR** or **▼** to erase a digit. A long **CLEAR** key press erases the whole number.

STORE NUMBER  
9898327777

4) Press **PROG** to confirm number and enter name edit mode.

STORE NAME  
ROBT

5) Press **CLEAR** or **▼** to erase right most character. A long **CLEAR** key press erases the whole name.

STORE NAME  
ROBERT

6) Press **PROG** to confirm change. The phone returns to Phone Book recall mode, and displays the entry that was edited.

ROBERT  
9898327777

**Deleting a Phone Book entry:**

1) Press **PROG** to enter the menu; press **▼** to put **PHONE BOOK** on the top line of the display; press **PROG** again; with "**RECALL**" in the first line, press **PROG** again.

ALICE  
2278238989

2) Scroll through the Phone book entries using **▼** or **▲**; **OR** enter the first character of the desired name and continue searching using the **UP/DOWN** keys.

**R**

ROBERT  
9898327777

3) Press **CLEAR**; you will then be asked to confirm your decision.

ROBERT  
DELETE?

4) Press **PROG** to accept; the Phone Book displays the next entry. **-OR-** Press **CANCEL** to abort.

ALICE  
2278238989

**Entering new names and numbers into the Phone Book:**

1) Press **PROG** to enter the menu; press **▼** to put **PHONE BOOK** on the top line of the display; press **PROG** again; press **▼** to put "**STORE**" in the first line; then press **PROG** again.

STORE NUMBER

2) Enter the number (up to 24 digits). In case the number exceeds 16 digits, the number is left truncated and the last entered 16 digits are shown.

STORE NUMBER  
9876543210

3) Press **PROG**

STORE NAME

4) Enter the desired name. A name has to be entered, otherwise an audible alert is given and the phone returns to the 'STORE NAME' display.

STORE NAME  
SOMEBODY

5) Press **PROG**. Your new entry has been stored. The screen returns to:

>STORE  
RECALL

Press **CANCEL** twice to return to the idle screen.

If the Phone Book is full when the user tries to store a new number in it, a message '**PHONEBOOK FULL**' is displayed, and the phone returns to the Phone Book menu (Store/Recall) after 5 seconds.

PHONEBOOK FULL

## **Volume**

Handset volume is adjusted by the following key sequence:

1) Press **PROG**.

>CALL LOG  
PHONE BOOK

2) Press **▼** two times.

>**HANDSET VOLUME**  
RING VOLUME

3) Press **PROG** to enter the volume sub-menu.

HANDSET VOLUME  
■■■

4) Enter **0** (quietest) to **7** (loudest); or adjust using **▼/▲** keys.

HANDSET VOLUME  
■■

5) Press **PROG** to confirm the setting. The display returns to:

>HANDSET VOLUME  
RING VOLUME

**NOTE:** During your conversation, the volume can be adjusted with the **▲/▼** keys. The level will be represented by the number of bars displayed on the screen. If you try to adjust the volume beyond the lower or upper limits, the Handset will emit an error tone. The display returns to normal in-call presentation after 4 seconds. The default audio volume is **2**.

## **Ring Volume**

The ring volume is adjusted by the following key sequence:

1) Press **PROG**.

>CALL LOG  
PHONE BOOK

2) Press **▼** three times.

>**RING VOLUME**  
RING PATTERN

3) Press **PROG** to enter the ring volume sub-menu.

RING VOLUME  
■■■

4) Enter **0** (ringer OFF) to **6** (loudest); **-OR-** adjust using **▼/▲** keys. The current ring tone is played once at the selected new volume.

RING VOLUME  
■■

5) Press **PROG** to confirm the setting. The display returns to:

>RING VOLUME  
RING PATTERN

Ringling is switched off by adjusting the ring volume to **zero**. A "**Ringer OFF**" icon is shown in the display during idle mode. The default ring volume is **3**.

### **Ring Pattern**

The ring pattern of an incoming call is changed by the following key sequence:

1) Press **PROG**.

```
>CALL LOG
PHONE BOOK
```

2) Press the **▼** key four times.

```
>RING PATTERN
AUTO ANSWER
```

3) Press **PROG** to enter the ring pattern sub-menu.

```
>EXTERNAL
INTERNAL
```

4) Press the **PROG** key to choose external ring pattern setting.

```
EXT RING PATTERN
0
```

5) Enter **0** to **9**, or adjust using **▼/▲** keys. The selected ring pattern is played for you.

```
EXT RING PATTERN
4
```

6) Press **PROG** to confirm the setting. The display will return to:

```
>EXTERNAL
INTERNAL
```

The default external ring pattern is 0.

### **Auto Answer**

With Auto Answer ON, you can answer a call by simply removing the Handset from the Base Unit.

1) Press **PROG**.

```
>CALL LOG
PHONE BOOK
```

2) Press the **▼** key five times.

```
>AUTO ANSWER
KEY CLICK
```

3) Press **PROG** to enter the auto answer sub-menu.

```
AUTO ANSWER
OFF
```

4) Enable auto answer by pressing **1** or **▲**, or disable auto answer by pressing **0** or **▼**.

```
AUTO ANSWER
ON
```

5) Press **PROG** to confirm the setting. The display will return to:

```
>AUTO ANSWER
KEY CLICK
```

Auto answer is disabled by default.

### **Key Click**

When the key click option is enabled, any key press generates a click sound, except when the keypad is locked.

To access the Key Click option:

1) Press **PROG**.

```
>CALL LOG
PHONE BOOK
```

2) Press the **▼** key six times.

```
>KEY CLICK
KEY LOCK
```

3) Press **PROG** to enter the key click sub-menu.

```
KEY CLICK
ON
```

4) Enable key click by pressing **1** or **▲**, or disable key click by pressing **0** or **DOWN**.

```
KEY CLICK
OFF
```

5) Press **PROG** to confirm the setting. The display will return to:

>KEY CLICK  
KEY LOCK

**Note:** 1) Key Click is On by default; and 2) Key Click is disabled when the key lock is ON.

### **Key Lock**

It is possible to lock the Handset keypad. The key lock function is set/reset by:

1) Press **PROG.**

>CALL LOG  
PHONE BOOK

2) Press the ▼ key seven times.

>**KEY LOCK**  
HANDSET NAME

3) Press **PROG** to enter the key lock sub-menu.

KEY LOCK  
OFF

4) Enable key lock by pressing **1** or ▲, or disable key lock by pressing **0** or **DOWN**.

KEY LOCK  
ON

5) Press **PROG** to confirm the setting. If 'ON' was selected, the phone locks the keypad and returns to idle. A "key locked" status is shown in the display during idle mode:

READY  
KEY LOCKED

If 'OFF' was selected, the phone returns to the previous menu.

>KEY LOCK  
HANDSET NAME

### **Unlocking the Keypad**

The screen when the keypad is locked:

READY  
KEY LOCKED

While keys are locked, pressing any key will generate this screen:

PRESS 159  
TO UNLOCK

The message will disappear after 5 seconds.

To unlock the keypad press the key sequence '1', '5', '9'

READY

**NOTE:** It is still possible to dial an emergency call when the keypad is locked by pressing first **PHONE** and then the emergency number (e.g. 000,110,112,119,911,999). Key lock is disabled after an emergency call.

Key lock is disabled in the event of an incoming call, but returns to key lock when the call is terminated.

Key lock is disabled when placing the Handset in the charger.

Key lock is disabled by default.

### **Handset Naming**

It is possible to name your Handset. The name is shown in the first line during idle mode, and it replaces the "READY" indication. The maximum name length is 16 characters.

The Handset is named by following this programming sequence:

1) Press **PROG.**

>CALL LOG  
PHONE BOOK

2) Press the ▼ key eight times.

>HANDSET NAME  
LANGUAGE

3) Press **PROG** to enter the Handset name sub-menu.

NAME

4) Enter Handset name (characters are entered in the same way as for the Phone Book).

NAME  
DAD'S PHONE

5) Press **PROG** to confirm the setting **and to return to idle mode**.

DAD'S PHONE

### **Language**

The language used in the Handset display can be selected by following this sequence:

1) Press **PROG**.

>CALL LOG  
PHONE BOOK

2) Press the ▼ key nine times.

>LANGUAGE  
CLEAR MSG WAIT

3) Press **PROG** to enter the language selection sub-menu. The current language is shown in the second line. Use ▲ or ▼ to –OR– press **0**, **1** or **2** to select **English**, **Spanish** or **French**, respectively.

LANGUAGE  
ENGLISH

4) Press **PROG** to confirm the setting. The phone returns to the previous menu.

>LANGUAGE  
CLEAR MSG WAIT

The default language is **English**.

### **Message Waiting**

Working in conjunction with **BellSouth** voicemail, the Handset and Base Unit provide visual prompts to alert you to new messages. Once you have reviewed all new messages, the prompts are turned off until a new message is received. You can also remove the 'MESSAGE WAITING' alert from the Handset display manually, following this sequence:

1) Press **PROG**.

>CALL LOG  
PHONE BOOK

2) Press the ▼ key ten times.

>CLEAR MSG WAIT  
CALL LOG

3) Press **PROG** to enter the message sub-menu.

CLEAR MSG WAIT  
CONFIRM?

4) Confirm clearing of the Message Waiting indication by pressing **PROG** (= yes), or cancel clearing by pressing **CANCEL** (= no). After this the phone returns to the previous menu.

>CLEAR MSG WAIT  
CALL LOG

### **Base Unit Status Indication**

- The Base Unit is equipped with a **CHARGE** indicator (a red LED), which is turned on by putting the Handset in the charge cradle.
- The second Base Unit indicator serves multiple purposes – specifically, **Message Waiting** and **Line Status**. This LED is sometimes red and sometimes green, depending on what it is indicating:

**SITUATION**                      **WITHOUT MESSAGES 'WAITING'**    **WITH MESSAGES 'WAITING'**

<b>Phone line Disconnected</b>	<b>Very slowly flashing Green</b>	<b>Very slowly flashing Green</b>
<b>Phone line is idle</b>	<b>LED is Off</b>	<b>Flashing Red</b>
<b>Line is ringing</b>	<b>1/2 second Green; 1/2 second Off</b>	<b>1/2 second Green; 1/2 second Off</b>
<b>Handset is in use</b>	<b>LED is steady Green</b>	<b>1 second Green; 1 second Off</b>
<b>Parallel extension is in use</b>	<b>LED is steady Green</b>	<b>1 second Green; 1 second Off</b>

### **Handset Status Indication**

Handset Status Indication – Display Icons and Antenna indicator (LED)

#### **Service Indication (Antenna icon)**

This icon is displayed when the Handset is within range of the Base. This icon is off when the Handset is out of range of the Base.

#### **Off Hook (Telephone icon)**

This icon is on when the Handset is in use (off hook).

#### **Low Battery**

This icon is displayed when the battery voltage drops below the critical charge level. The icon is turned off when the battery is charged above its critical level.

#### **Key Lock**

The key lock icon is displayed when the keypad has been locked.

#### **New Call (NEW)**

The New Call icon is displayed when there are one or more unreviewed calls in the CID call log.

#### **Ringer Off**

The icon is displayed when you program the ringer to OFF (ring volume = 0).

### **Display Messages**

The Handset provides a number of status messages in the display either in the idle state or during conversation.

The following status messages are shown in the **idle** mode (in prioritized order):

When the Handset is out of range, an "out of service" message is shown in line one.

OUT OF SERVICE

When the Handset does not have a valid registration, the display shows:

NOT REGISTERED  
PLACE IN BASE

If a new battery has been inserted (or the battery has been run down), and the battery voltage is too low to guarantee reliable use, the display shows:

PLACE IN CHARGER

When the battery's nominal charge level is reached, it will display "CHARGING":

CHARGING

When the battery is charged up to a level above its nominal charge level, it will display "READY":

READY
-------

**NOTE: Even though the display now displays 'READY', the battery pack may not be fully charged.**

If the phone line is disconnected, a "no line" warning is shown on line two:

READY
NO LINE

When the keypad is locked, the status is displayed on line two:

READY
KEY LOCKED

If the phone line is in use (by another telephone connected the same line), the "ext in use" message is presented on line two:

READY
EXT IN USE

If there are new, unreviewed voicemail messages, the status is displayed on line two:

READY
MESSAGE WAITING

When there are one or more new, unreviewed calls stored in the CID call log, the status is displayed on line two:

READY
10 CALL/3 NEW

When the ringer is programmed to Off (volume = 0), the status is displayed on line two.

READY
RINGER OFF

The following messages may be displayed during conversation:

When the battery low level is reached, the "charge battery" recommendation is displayed on line two:

TALK 1:32:56
CHARGE BATTERY

When the microphone is muted, the status is displayed on line two:

TALK 1:32:56
MIC MUTE

### **LED Indication – Handset Antenna**

A red indicator (LED) inside the antenna illuminates when there are new, unplayed Voice Messages in your voicemail service.

### **Audible Alerts**

The Handset provides a number of audible indications.

#### **Out of Range:**

- The Handset emits **one** triple-beep after being out of range of the Base for at least 1 minute.

#### **Low Battery:**

- The Handset emits a double-beep **two times** (separated by 1 minute) in the earpiece when your on a call.
- The Handset emits a double-beep **two times** (separated by 1 minute) when in idle (on-hook) mode.

#### **Charging:**

- The Handset beeps when correctly placed in the charger.

**Registration:**

- The Handset beeps when the registration procedure is successfully completed.
- The Handset emits **one** double-beep in the event of unsuccessful registration.

**Auto Registration**

When the Handset is placed in the Base Unit, the Handset transmits a registration packet to the Base via the charger terminals. The Base Unit enables registration and broadcasts registration data via the air interface. The Handset locks to this Base, and registration is completed.

When a new Handset transmits a registration packet to a Base Unit, the Base check how many Handsets there are already registered. In case 4 Handsets are already registered, the Base Unit starts to search for them. If it can locate all, then the 5th Handset can't be registered, and registration is blocked. In case a Handset that already is registered is out of range, or, for other reasons, does not reply to the search and notification request, it will be de-registered, and the registration procedure for the new Handset is initiated.

The Handset registration procedure must be completed within the time-out limit of 45 seconds. A second Handset cannot be registered during an ongoing registration procedure.

In case of heavy air interference, e.g. when many 2.4GHz products are active in the same area, the registration duration may be longer, since registration consists of data transfer, which, in contrast to audio, has to be error free.

The way to de-register a Handset and register it to another Base Unit is to power down the Base Unit, and place the Handset into a different Base cradle. After powering down the first Base Unit, the Handset is no longer linked to it, and can be registered to another base. When the Handset is placed in the other Base cradle, a new registration will take place, and the old registration doesn't exist any more.



## **Consumer Information**

1. This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the back of this equipment is a label that contains, among other information, a product identifier in the format US:DDKW400BWWI244X. If requested, this number must be provided to the telephone company.
2. An applicable certification jacks Universal Service Order Codes (USOC) for the equipment is provided (i.e., RJ11C) in the packaging with each piece of approved terminal equipment.
3. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details in section (2).
4. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN for this product is part of the product identifier that has the format US:DDKW400BWWI244X. The digits represented by 00 are the REN without a decimal point (e.g., 03 is a REN of 0.3). The REN is separately shown on the label too.
5. If this equipment BS2440 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
6. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
7. Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair any parts of device except specified.
8. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.
9. This equipment is hearing aid compatible.

### NOTICE:

- 1) If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this BS2440 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.
- 2) According to telephone company reports, AC electrical surges, typically resulting from lightning strikes,

are very destructive to telephone equipment connected to AC power sources. To minimize damage from these types of surges, a surge arrestor is recommended.

Should you experience trouble with this equipment, please contact BellSouth Customer Support for service information. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

**WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**CAUTION:** To maintain compliance with the FCC's RF exposure guidelines place the base unit at least 20 cm from nearby persons.

**NOTE:** 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 needed.
- Consult the dealer or an experienced radio TV technician for help.

**BellSouth Customer Support:           1-800-733-2355**

## **Limited Warranty**

### **WHAT DOES OUR WARRANTY COVER?**

- \* Any defect in material and workmanship.

### **FOR HOW LONG AFTER THE ORIGINAL PURCHASE?**

- \* To the original purchaser only – ONE YEAR.

### **WHAT WILL BELLSOUTH DO?**

- \* At our option, repair or replace your unit.

### **HOW DO I ARRANGE FOR SERVICE, WHETHER IN OR OUT OF WARRANTY?**

- \* **Call Customer Support for Return Authorization at 1-800-733-2355.**
- \* Carefully pack your unit. Include all accessories provided with the product. We recommend using the original carton and packing materials.
- \* Include a copy of the sales receipt or other evidence of date of original purchase (if purchase was within the last 12 months).
- \* Print your name, address and phone number, along with a description of the defect, and include this in the package.
- \* Include payment for any service or repair not covered by warranty, as determined by BellSouth.

### **WHAT DOES OUR WARRANTY NOT COVER?**

- Batteries
- Damage from misuse, neglect or acts of nature (lightning, floods, power surges, etc.)
- Products which may have been modified or incorporated into other products
- Products purchased and/or operated outside of the US, its territories, or Canada
- Products serviced by the owner or a service facility not expressly authorized by BellSouth
- Products purchased more than 12 months from the current date
- Units purchased in "AS IS" condition, or units purchased as "Distressed Merchandise"

### **HOW DOES STATE OR PROVINCIAL LAW RELATE TO THIS WARRANTY?**

- \* This warranty gives you specific rights. You may also have other rights which vary from state to state or province to province.

For service or replacement and purchase of a suitable headset, may contact:

**1-800-733-2355**

**Innotrac Corporation  
6655 Sugarloaf Pkwy  
Duluth, GA 30097  
USA**