



# MVX405

## HANDHELD PORTABLE CELLULAR TELEPHONE

## OWNER'S OPERATING INSTRUCTIONS



Division of Audiovox corp.  
185 Oser Ave. Hauppauge NY, 11788

## ***PREFACE FOR MVX405***

Congratulations. By choosing the MVX405, you have joined the millions of satisfied customers who are enjoying the benefits and quality performance that only an Audiovox Cellular Telephone can provide.

Your Audiovox Portable Cellular Telephone has been designed to the highest standards of quality and manufacturing excellence to fulfill both your personal and business requirements.

The Audiovox MVX405 Portable Cellular Telephone comes complete with a standard battery pack and desk top charger. The standard battery provides over 70 minutes of talk time at maximum power and 12 hours of standby time.

The Audiovox MVX405 is packed with advanced features, like one touch emergency dialing, automatic call retry and a constant battery life indicator.

Optional accessories include, an extended life Nickel Metal Hydride Battery Pack, a Slim Profile Nickel Metal Hydride Battery and a Handsfree Car Kit with provisions for external antenna and power booster. A cigarette lighter adapter and leather carrying case are also available.

And of course, your new Audiovox MVX405 comes with something only an Audiovox phone can provide. The proven reliability that has made Audiovox one of the world's leading suppliers of cellular communications equipment.

The following pages describe the unit's functions and will help you make the most efficient use of this wonderful communications tool.

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■ **GENERAL SPECIFICATIONS**

■ **INTRODUCTION**

◆ **Safety Precaution**

As with any product, precautions should be observed during its handling and use. Failure to heed the following safety precautions could result in serious personal injury and possible property damage.

**DANGER**

***RADIO FREQUENCY INJURY:***

Your phone is a radio frequency transmitting device. When the phone is in use, radio frequency energy with a maximum power output level of 0.6 watts of radio frequency energy radiates from the antenna. Avoid direct contact with the phone's antenna when in use.

***EXPLOSIVES:***

Radio frequency energy (RF) is potentially hazardous near explosives. Turn off your phone when refueling a vehicle with gasoline or when you are in areas of blasting operations or other hazardous environments. **ALWAYS OBEY "Turn Off Two Way Radios" signs.** Use phone **[PWR]** key to turn off the power.

***TRANSPORTING EXPLOSIVES:***

Because of the danger of explosion, **NEVER** store nor carry flammable gas and/or liquids or explosive materials in the same compartment with your cellular telephone. Treat LP gas and containers as an explosive.

***CAR ACCIDENT:***

**AVOID** using your phone while you are driving a vehicle, even if your phone allows hands-free operation. When a call is received or when you are making a call, **PULL OFF THE ROAD AND PARK.** It is illegal in some locations to use mobile and radio telephones while driving.

***INJURY IN VEHICLE:***

Secure the phone while in your vehicle to prevent damage to the phone and personal injury in the event of an accident.

***HAZARDOUS INTERFERENCE WITH CRITICAL ELECTRONICS:***

**TURN OFF** your cellular telephone when in an aircraft. The use of cellular phones in an aircraft may be dangerous to the operation of the aircraft or disrupt the cellular network, and is illegal.

***ELECTROMAGNETIC INTERFERENCE WITH YOUR PHONE:***

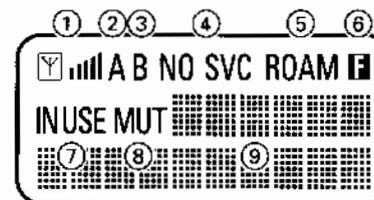
Speed Control, Anti-Lock Brake System, Fuel Injection System, Digital Instrument Panel Displays, and High Wattage Audio Systems:

These electronic devices are usually protected in vehicle installations from emitting electromagnetic radiation. A possibility exists that such devices could interfere with proper operation of your cellular phone and your phone with them. Consult your vehicle dealer and/or manufacturer's representative should such problems develop.

## ◆ Features

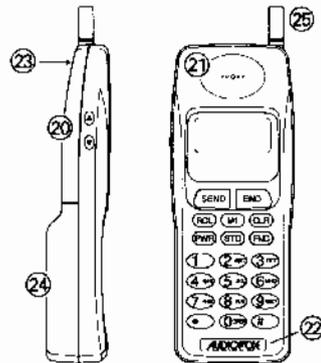
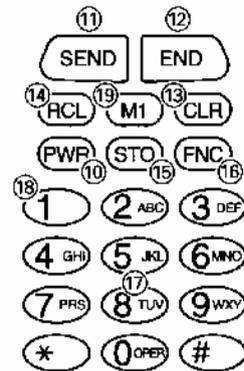
- *SID Management (NAM Option)*
- *Multiple City Registration*
- *Easy to read LCD display with alphanumeric and status indicators*
- *Back-lit keypad and LCD display*
- *Microphone mute control*
- *Priority/Emergency calling with automatic retry*
- *Automatic call retry*
- *89 alphanumeric memory locations*
- *7 Location Scratch Pad, with automatic scroll*
- *Vacant memory location search*
- *Automatic entry into vacant memory location*
- *Phone number search*
- *Name search*
- *One Touch Dialing*
- *One Touch Emergency Call*
- *Last 3 number dialed memory*
- *Silent Incoming Calls*
- *Automatic Answering*
- *Call in progress protection*
- *Call time warning tone*
- *DTMF tone dialing from memory*
- *DTMF keypad mute*
- *DTMF extended tone dialing*
- *A/B system selection*
- *Current SID, RF Channel and RSSI Level display*
- *Automatic self diagnostics*
- *Electronic serial number display (own)*
- *Telephone number display (own)*
- *System ID display (own)*
- *6 function call timer*
- *Function review*
- *Battery level indicator*

## ◆ Display Information



- |  |   |
|--|---|
| <p>① <b>RECEIVED SIGNAL STRENGTH</b> Indicator  <b>RECEIVED SIGNAL STRENGTH</b> Indicator constantly displays the signal strength represented by the number of BARS in the display panel.</p> <p>② <b>SYSTEM A</b> Indicator <b>A</b><br/>Lights when the system A (non-wireline) or normal mode is selected.</p> <p>③ <b>SYSTEM B</b> Indicator <b>B</b><br/>Lights when the system B (wireline) or normal mode is selected.</p> <p>④ <b>NO SERVICE</b> Indicator <b>NO SVC</b><br/>Lights when a unit is out of the cellular service area.</p> <p>⑤ <b>ROAM</b> Indicator <b>ROAM</b><br/>Lights when receiving services other than a registered home system.</p> <p>⑥ <b>FUNCTION MODE</b> Indicator <b>FNC</b><br/>Lights when the <b>FUNCTION</b> key  is pressed to select extended functions.</p> | <p>⑦ <b>IN USE</b> Indicator <b>IN USE</b><br/>Lights when a call is in progress.</p> <p>⑧ <b>MUTE</b> Indicator <b>MUT</b><br/>Lights when the mute control is in effect.</p> <p>⑨ <b>16-digit Display</b><br/>Displays a telephone number dialed.</p> |
|--|---|

◆ Key and Miscellaneous Information



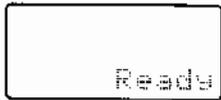
- ⑩ **POWER** Switch (PWR)  
Turns on and off the unit.
- ⑪ **SEND** Key (SEND)  
Initiates a call and allows the user to answer calls.
- ⑫ **END** Key (END)  
Terminates a call.
- ⑬ **CLEAR** Key (CLR)  
Clears the digit(s) from the display.
- ⑭ **RECALL** Key (RCL)  
Recalls telephone numbers from memory.
- ⑮ **STORE** Key (STO)  
Used in conjunction with digit keys, enables the user to store telephone numbers into memory.
- ⑯ **FUNCTION** Key (FNC)  
Used in conjunction with digit keys, allows operation of extended functions.
- ⑰ **DIGIT** Keys (1) thru (0), (#) and (\*)  
Enters telephone numbers, alphanumeric information, etc..
- ⑱ **ONE TOUCH EMERGENCY** Key (1)  
Allows you to place a call to an emergency number by a single key stroke.
- ⑲ **ONE TOUCH DIAL** and **MUTE** Key (M1)  
In Idle mode, allows you to place a call with a single key stroke. In conversation mode, switches off the microphone so the other party on the line cannot hear your private conversation off line.
- ⑳ **VOLUME ADJUSTMENT** keys (VOLUME)  
Used to adjust the alert tone, earpiece, and keypad tone.
- ㉑ **EARPIECE RECEIVER**
- ㉒ **MICROPHONE**
- ㉓ **RINGER**
- ㉔ **BATTERY PACK**
- ㉕ **RETRACTABLE ANTENNA**

■ BASIC OPERATION

◆ Turning the Phone ON and OFF

Each time you turn on your cellular telephone, it goes through certain "Wake Up" routines.

Upon power up, all indicators will light and your own telephone number will be displayed momentarily. The word "Ready" will appear and remain in the display window signaling your phone is operational and ready for use.



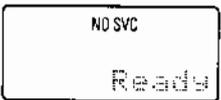
⚠ *Display and Keypad backlighting turn off after 8 seconds to save battery power. Pressing any key relights the Display and Keypad for another 8 seconds.*

✓ To turn on your phone simply press the **POWER** switch (PWR) located just above the number pad.



✓ To turn off the phone press and hold (PWR) for 0.5 seconds.

⚠ *If the NO SERVICE Indicator NO SVC remains lit calls cannot be placed or received as the "Cellular System" is not available in the area you are currently in.*



*Refer to the "SID Management" section for a complete description of the ROAM indicator ROAM and NO SERVICE Indicator NO SVC.*

**Antenna Position**

Your portable cellular telephone has been equipped with a dual position antenna system.

This dual position antenna has been especially designed to allow your phone to receive calls while the antenna is down. However, for optimum performance and signal strength or while operating in poor signal areas, it is recommended that the antenna be fully extended.

⚠ *The antenna can be used in its fully extended or fully retracted position only.*

**Display Own Telephone Number and System ID**

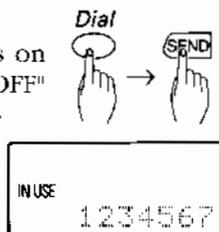
- ✓ To display your Telephone Number, press (FNC), (#), (1).
- ✓ To display your System ID, press (FNC), (#), (3 DEF).
- ✓ To clear the display, just press (CLR).

## ◆ Making and Receiving Calls

### Placing Calls

When entering telephone numbers manually each digit entered will appear in the display panel and will scroll from right to left every time a new digit is entered.

- ✓ To place a call make sure the power is on (refer to the "Turning the Phone ON and OFF" on previous page), enter the desired telephone number and press the **SEND** key . At this point the *IN USE* indicator *IN USE* will light.



- ✓ To correct an error made while entering a telephone number you may use the following methods:

- Press the **CLEAR** key  to erase the last digit entered.
- Press and hold  to erase all the displayed numbers.
- Press  and  to erase all the displayed numbers.



- ✓ To hang up the phone after or during the dialing procedure just press the **END** key .

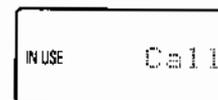
 *The display panel is 16 columns wide however numbers containing up to 32 digits may be entered, therefore only the last 16 digits dialed will remain in the display. Refer to the part in this section entitled "Reviewing the Preceding Digits".*

### Call-in Progress Protection

Even if the **POWER** switch  is pressed during conversation, the unit remains on so that the call is not interrupted.

## Receiving Calls

The cellular telephone features both audio and visual signals to indicate an incoming call. The telephone will both ring and the word "Call!" will flash repeatedly in the display panel.



- ✓ To answer an incoming call press any key except , , , or . *IN USE* will light and you may proceed with the call as usual.
- ✓ To hang up the phone after or during a conversation press .

 *If calls go unanswered the word "Call!" and the number of unanswered calls will appear and remain in the display until the display panel is cleared.*

### Silent Incoming Calls

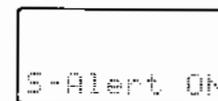
If Silent Alert feature is set, a single beep and a flashing "Call!" message on the display will alert you of an incoming call.

Once you have switched to silent alert, the phone stays in that mode until you deactivate it.

- ✓ To activate this mode, press , . The "S-Alert ON" will appear in the display to alert you.
- ✓ To deactivate this mode, press ,  again. The "S-Alert OFF" will be displayed.



When this mode is ON:



OFF:

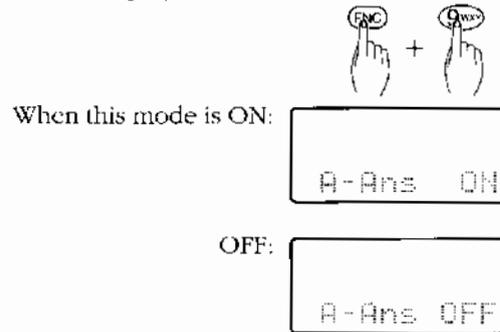


 *If the Silent Incoming Calls is activated when the unit is powered up, "S-Alert ON" will appear on the display.*

### Automatic Answering

In Hands-Free mode with this feature, the unit will automatically answer any incoming calls on the second ring, and the IN USE indicator will light. Then the unit is ready for conversation.

- ✓ To activate this mode, press **FNC**, **9**.  
The "A-Ans ON" will appear in the display to alert you.
- ✓ To deactivate this mode, press **FNC**, **9** again.  
The "A-Ans OFF" will be displayed.



**!** This feature will not function if the unit is in the Lock, Call Restriction, Silent Incoming Calls or not in Hands-Free mode.

If the Automatic Answering is activated when the unit is powered up, "A-Ans ON" will appear on the display.

### Reviewing the Preceding Digits

A condition may arise while entering numbers longer than 16 digits when the leftmost part of the entered number scrolls off the display and out of view. The entered number under this condition exists as two segments of 16 digits each.

- ✓ To view the leftmost 16 digit segment press the **FUNCTION** key **FNC**, **\***, **8**.
- ✓ To toggle the view back to the rightmost 16 digits just press any key.

### Redialing Functions

#### Last Three Numbers Dialed

This feature is used to display the numbers of the three most recent calls that have been made.

- ✓ To display the number of the most recently made call, press **RCL**, **#**, **0**.
- ✓ To display the number of the second most recently made call, press **RCL**, **#**, **1**.
- ✓ To display the number of the third most recently made call, press **RCL**, **#**, **2**.

**!** If "Ready" is displayed and you wish to redial the last number dialed simply press the **SEND** key.



#### Automatic Redial

When a "Cellular System" busy signal occurs the Automatic Redial function can be used to redial a telephone number automatically (up to 3 times) at regular intervals 60 seconds apart.

The message "Auto Redial" will appear on the display to indicate Automatic Redial has been initiated.



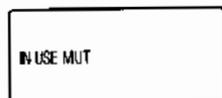
- ✓ To initiate Automatic Redial press the **FUNCTION** key **FNC**, **0**, and the **SEND** key **SEND** consecutively as illustrated.
- ✓ To abort Automatic Redial simply press the **END** key **END**.

**!** A distinction should be made between a "Line busy signal" and a "Cellular System" busy signal. (Automatic Redial will initiate only on a "Cellular System" busy signal.)

## ◆ MIC Mute

The MIC MUTE function deactivates the microphone located in the mouth piece of your phone so you can converse at your location and not be overheard by the party on the line.

- ✓ To toggle the MIC MUTE mode ON press the **MUTE** key . The **MUTE** indicator MUT should now be lit.



- ✓ To deactivate MIC MUTE mode just press  once again. MUT should go dark and normal conversation can be resumed.

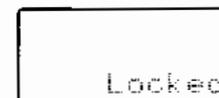
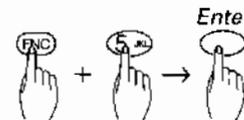
- ⚠ *The Mute mode will automatically be released when the conversation is terminated.*
- ⚠ *The  key can be used as One Touch Dial Key when not in conversation.*

## ■ ENHANCED OPERATION

### ◆ Locking and Unlocking the Phone

The cellular telephone has a lock feature to restrict the origination of outgoing calls except for One Touch Emergency Call, Emergency (911, 000, 119), the 3 digit emergency number registered in the NAM and those numbers stored in the emergency / priority dialing area. (Refer to "Emergency and Priority Dialing".)

- ✓ To Lock your phone press the **FUNCTION** key , , and enter the 3 digit registered unlock code. The word "Locked" should now be displayed in the display panel.



- ✓ To Unlock the unit just enter the same 3 digit code you entered as the Unlock code.

- ⚠ *While the unit's UNLOCK code has been factory set as 123 it may be changed if so desired. Please refer to the section entitled "User Programmable Codes".*
- ⚠ *The number you enter as a "Unlock" code should be written down and stored safely!*

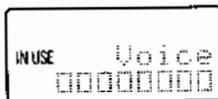
## ◆ Volume Adjustment

Your cellular telephone has independently adjustable volume controls for the "Earpiece" speaker volume, the "Loudspeaker's" keypad tone level and the "Loudspeaker's" ringer/warning levels.

### Earpiece Volume

The "Earpiece" volume level controls how loud the other party's voice will sound from the Earpiece speaker.

- ✓ To adjust the Earpiece volume level while the *IN USE* indicator *IN USE* is lit in conversation, just press the  $\uparrow$  or  $\downarrow$  buttons.



- ✓ To adjust the Earpiece volume level while *IN USE* is not lit and not in conversation press the **FUNCTION** key (FNC), (\*), and enter the digits (9) (1). When the word "Voice" appears in the display panel press the  $\uparrow$  or  $\downarrow$  buttons to raise or lower the volume level respectively.



### Loudspeaker Volume

The "Loudspeaker" volume level controls how loud the telephone will be while ringing or while pressing keys on the keypad.

- ✓ To adjust the ring volume wait for an incoming call and use the  $\uparrow$ ,  $\downarrow$  buttons to raise or lower the volume level during the ring cycle.



- ✓ To adjust the loudness of the ring while not in use press (FNC), (\*), and enter the digits (9) (1). The word "Alert" will appear in the display panel and you can alter the volume level using the  $\uparrow$  or  $\downarrow$  buttons.



- ✓ To adjust the loudness of the keypad tones while not in use, simply press the  $\uparrow$  or  $\downarrow$  buttons.

- ✓ The word "Tone" will appear in the display panel and you may proceed to alter the volume level using the  $\uparrow$  or  $\downarrow$  buttons.



*While adjusting the volume levels of any attributes a volume level meter will be displayed in the display panel.*

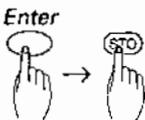
## ◆ Memory Functions

Up to 89 numbers can be stored in the Memory Dialing System. It should be noted that there are two kinds of storage areas, those which can contain a number up to 32 digits in size (locations 01 through 19) and those which can only contain numbers with 16 digits or less (locations 20 through 89).

### Manual Storage

Telephone numbers may be stored manually into locations 01 through 89.

- ✓ To use Manual Storage enter the telephone number to be stored and press the **STORE** key **[STO]**. The telephone number will blink on and off for about 8 seconds during which time you may enter a 2 digit location number 01 through 89 to which the telephone number will be stored.

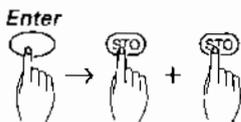


⚠ *If the memory location number selected contains a previously stored telephone number the newly entered telephone number will replace the existing one.*

### Automatic Storage

This feature is used to store telephone numbers in memory locations automatically.

- ✓ To use the Automatic Storage feature enter the telephone number to be stored and press **[STO]** twice. The 2 digit location number 01 through 89 to which the telephone number was stored will be displayed for approximately 2 seconds.



⚠ *If there are no available locations the word "Full" will be displayed and the mode will be released.*

## Vacant Memory Location Search

This feature is used to search for unused memory locations to which telephone numbers may be stored. The Vacant Location Search function will try to place phone numbers in the appropriate sized memory locations automatically. So that when a 16 digit number is applied locations 20 through 89 are given first priority. In this way numbers containing 17 digits or more may be stored in the only place they can be, locations 01 through 19.

- ✓ To use the Vacant Memory Location Search function enter the telephone number you wish to store and press **[STO]**. At this point you may choose an ascending or descending search order by pressing the **[▲]** or **[▼]** button respectively. When the first vacant memory location is found that memory location's number will appear briefly in the display panel. Immediately following, the telephone number about to be stored will flash on and off in the display panel for approximately 8 seconds during which time you may either store the number by pressing the **SEND** key **[SEND]** or search for another location by pressing one of the **[▲]** or **[▼]** buttons.



- ✓ To exit the Vacant Memory Location Search function just press the **END** key **[END]**.

### Number Search

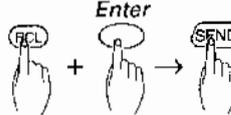
This feature allows the user to scan, recall and dial numbers stored in locations 1 through 96.

- ✓ To use Number Search press the **MEMORY RECALL** key (RCL) and use the  $\Delta$  and  $\nabla$  buttons to scroll through the memory locations. When occupied locations are found the label (refer to the "Alphanumeric Functions" for a more in depth description of labels and their usage) is displayed in the display panel for a few seconds and the telephone number is then displayed.
 

- ✓ To dial a number found in the search process just press (SEND).
- ✓ To exit from the search mode at any time press (END).

### Memory Redial

Telephone numbers can be recalled and dialed from one of any 89 different memory locations.

- ✓ To dial a number stored in memory press (RCL) and enter the 1 or 2 digit location number 1 through 89, you wish to dial. When the desired telephone number appears in the display panel you may press (SEND) to initiate dialing.
 

 Locations 90 through 96 are reserved. (Refer to the "Scratch Pad".)

### ◆ One Touch Dialing

This feature permits you to place call by a single key stroke.

#### Storing a Number into One Touch Memory

Press (CLR), then enter a phone number.  
Press (STO), then One Touch key (M1).  
Stored numbers can be reviewed by pressing (RCL), (M1).

#### Placing a Call to a Number in One Touch Memory

Press the One Touch key (M1) for approx. 0.5 seconds.  
The telephone number will be displayed on the readout, and the INUSE indicator will light as a call is placed.



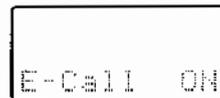
The (M1) key can be used as Mute key during conversation.

### ◆ One Touch Emergency Call

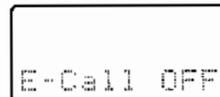
This feature permits you to place a call to an emergency number by single key stroke, even when the unit is in Lock and/or Call Restriction mode. You can deactivate this feature to prevent unintentional call by mistake.

- ✓ To place a call to the emergency number, press (1) key for more than 2 seconds. The emergency number that is pre-programmed in the NAM will be displayed, and INUSE indicator will light as a call is placed.
- ✓ To deactivate this feature, press (FNC), (\*), (4), and enter the 3-digit registered unlock code.
 
- ✓ To activate this feature again, follow the same key sequence.

When this mode is ON:



OFF:



### ◆ Alphanumeric Functions

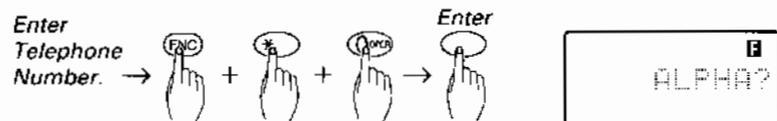
In conjunction with individual telephone numbers, alphanumeric "labels" may also be entered to supplement phone numbers. Labels, most commonly names, can consist of both numerals and letters and can contain up to 10 characters. Alphanumeric labels may be entered and stored for locations 1 through 89.

#### Storing Labels and Numbers

While in alphanumeric entry mode there are 4 keys (please refer to the table entitled "Editor Function Keys" on the following page) which supply editing functions to manipulate your entered label.

After you have entered the alphanumeric label following the procedure outlined below you may store it in a memory location by following one of the procedures listed under "Memory Functions".

- ✓ To enter an alphanumeric label with a telephone number, enter the telephone number to be stored and press the **FUNCTION** key (FNC), (\*), (OPN) consecutively. The word "ALPHA?" should appear in the display panel and you can enter the label characters as described on next page.



### Alphanumeric Character Entry Keys

Key	Key Presses				
	FIRST	SECOND	THIRD	FOURTH	FIFTH
(1)	&	@	SPACE	1	
(2 <sup>abc</sup> )	A	B	C	2	
(3 <sup>def</sup> )	D	E	F	3	
(4 <sup>gh</sup> )	G	H	I	4	
(5 <sup>kl</sup> )	J	K	L	5	
(6 <sup>mno</sup> )	M	N	O	6	
(7 <sup>pqr</sup> )	P	Q	R	5	7
(8 <sup>st</sup> )	T	U	U	8	
(9 <sup>wxyz</sup> )	W	X	Y	Z	9
(0 <sup>ops</sup> )	.	-	#	0	

### Editor Function Keys

Key	Function
(*)	will create a space by shifting characters left.
(#)	will create a space by shifting characters right.
Press (CLR)	will delete the last character entered.
Hold (GLR)	will delete the entire line of characters.

### Label Search

This feature allows you to search for and recall telephone numbers by their labels.

- ✓ To recall a telephone number by its label press **FUNC**, **\***, **Open**, and enter enough of the label (usually two or three characters will suffice) to identify it (refer to the table in this section when entering characters).



Now press the **MEMORY RECALL** key **RCL** and use the **▲** and **▼** buttons to scroll through the memory locations which match the pattern of characters you entered. When the desired memory location is displayed you may press the **SEND** key **SEND** to execute the dialing sequence.



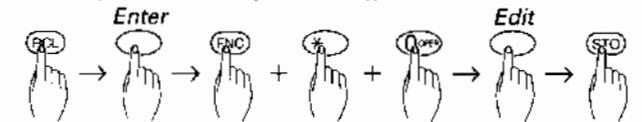
- ✓ To exit the Label Search mode press the **END** key **END**.

⚠ *If no match was found after the search the words "Not Found" will appear in the display, the mode will sustain, and you may enter another search string or press **END** to exit the mode.*

### Editing Labels

This feature will allow you to edit existing labels or add labels to existing phone numbers.

- ✓ To use this feature press **RCL** and enter the memory location number you wish to alter (1 through 89). Press **FUNC**, **\***, **Open**, and proceed with editing the label using the "Editor function keys" described in the table entitled "Editor Function Keys" (please refer to "Storing Labels and Numbers" for a complete description of alphanumeric entry). When finished press the **STORE** key **STO** to save your changes.



- ✓ To exit at any time from this Edit/Entry mode press the **END** key **END**.

- ⚠ *The telephone number must be entered before you enter an alphanumeric label.*
- ⚠ *Since letters and/or symbols are stored only when they are present on the display, make sure the total string is present before storing.*

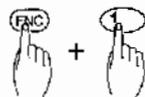
### ◆ Scratch Pad Memory

While in Scratch Pad mode the display may be used as a sort of numerical note pad during conversation and can hold up to 7 entries of up to 32 digits. This "Scratch Pad" can be used to store any kind of numerical data. For example a market quote while on-line with your stock broker or a telephone number supplied by a recording informing you the number has been changed and "the new number is...".

#### Storing Numbers in the Scratch Pad Memory

The note pad operates in a "First In First Out" (FIFO) fashion. The first number entered will be stored in memory location 90. When a second number is entered into the note pad the first number will be shifted to location 91 and the newly entered number will occupy location 90. In the same manner, when the seventh number is entered, the first number will be shifted to location 96, and when the eighth number is entered the first entry will be shifted out of memory and erased.

- ✓ To begin your entries into the Scratch Pad enter the first number you wish to store and press the **FUNCTION** key (FNC), (1). Just repeat this procedure for any following entries.

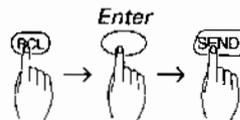


! If a telephone number is present in the display panel prior to your first entry, press the **CLEAR** key (CLB) to wipe the display.

#### Dialing Numbers from the Scratch Pad Memory

Although the Scratch Pad is primarily for use as a temporary storage device if one of the entries contains a telephone number (as in the "recorded message" example given above) it is possible to recall and dial that entry.

- ✓ To dial a note pad entry containing a telephone number press the **RECALL** key (RCL) and enter the desired location number 90 through 96. When the proper entry is displayed press the **SEND** key (SEND) to initiate the dialing sequence.



### ◆ Emergency and Priority Dialing

The MVX405 enables you to store a single telephone number up to 32 digits in length for priority or emergency purposes. The memory location 97 is reserved for this purpose. You would enter the emergency number under the procedures described in the section entitled "Manual Storage" but using 97 as the location number.

- ✓ To dial this special telephone number press **MEMORY RECALL** key (RCL), enter the digits (9) (7) and press **SEND** key (SEND) within 10 seconds.



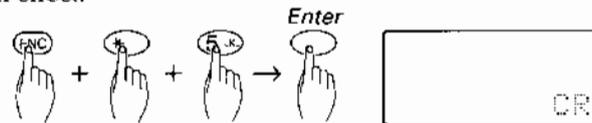
! The Emergency and Priority number will automatically be redialed up to 3 times at 30 second intervals or until a connection is made..

## EXTENDED FEATURES AND FUNCTIONS

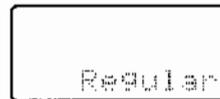
### ◆ Call Restriction

In the call restriction mode, only *specific keys\** will activate the unit so as to prevent unauthorized operation of the phone.

- ✓ To set Call Restriction mode press **FUNCTION** key (FNC), (\*), (5<sup>DO</sup>), and enter the registered 3 digit access code. The letter "CR" will appear in the display to indicate Call Restriction mode is in effect.



- ✓ To exit the Call Restriction mode just enter the same 3 digit access code again. The word "Regular" will appear in the display panel.



⚠ While the unit's Call Restriction code has been factory set as 123 it may be changed if so desired. Please refer to the section entitled "User Programmable Codes".

⚠ **The number you enter as an "Access Code" should be written down and stored safely!**

⚠ Following *specific keys\** are operative to recall the numbers in memory.

- Any combination of numbers 1 and 2

(RCL) + (1, 2, 11, 12, 21, 22)

- Emergency Call Numbers

a. (RCL) + 9 + 7

b. 9 + 1 + 1 (Sent directly)

c. 0 + 0 + 0 (Sent directly)

d. 1 + 1 + 9 (Sent directly)

e. 3-digit emergency number registered in the NAM (Sent directly)

- One Touch Emergency Call

### ◆ Keypad (DTMF) Tones

Dual Tone Multi-Frequency (DTMF), or "Keypad Tone" signals can be transmitted during a call by entering digits on the keypad or recalling numbers from memory. By sending DTMF signals you can access special services such as voice mail and answering machines that require long duration tones.

#### Keypad (DTMF) Tones Duration

You may select the time duration of DTMF tones either long tone or short tone whenever you wish.

To toggle the Long Tone or Short Tone, press the (FNC), (#), (8<sup>LOW</sup>).

The letters 'DTMF Long Tone' or 'DTMF Short Tone' will appear in the display to indicate the mode.

If you select the 'DTMF Long Tone' mode, a continuous DTMF tone will be sent for up to 3 seconds when you press any digit key during conversation.

If you select the 'DTMF Short Tone' mode, a DTMF tone duration will be fixed to 95 milli seconds.

#### Keypad (DTMF) Tones Mute

The "Key Pad Tones" (DTMF) may be muted during conversation, for example, to store a number into the Scratch Pad without interrupting conversation.

- ✓ To mute the keypad tones press **FUNCTION** key (FNC), (3<sup>DO</sup>).



- ✓ To enable the keypad tones press (FNC), (3<sup>DO</sup>) again.

#### Sending DTMF Tones

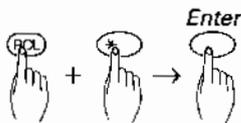
- ✓ From Keypad;

Press any key (0<sup>DO</sup>) - (9<sup>DO</sup>), (\*), and (#) to send the DTMF tones during conversation mode. When sending from the keypad, a continuous tone signal will sound for up to 3 seconds when you press the keys indicated above.

## Extended Features and Functions

- ✓ From memory;

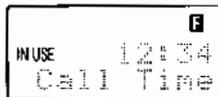
Press the **MEMORY RECALL** key (FCL), the digit key (\*), and the memory location numbers in 2 figures to send the DTMF tones from memory. The corresponding DTMF tones will be sent.



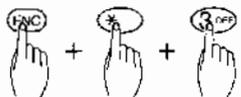
## ◆ Timer and Counter Functions

### Elapsed Time Display

While the *IN USE* indicator IN USE is lit, the clock in the display panel will keep a running total of elapsed time from the time of connection for that call in minutes:second format. While not in use this function will display the total elapsed time (spent on-line) of the last call made.



- ✓ To display the elapsed time in the display panel press the **FUNCTION** key (FNC), (\*), (3 sec). The message "Call Time" will appear in the display panel

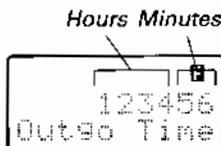


- ✓ To erase the elapsed time from the display just press the **CLEAR** key (CLR).

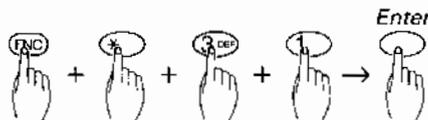
⚠ The time count will reset to 00:00 after 99 minutes and 59 seconds.

### Outgoing Call Timer

This function is used to time your outgoing calls. The timer resets to 00:00 after 9,999 hours and 59 minutes.



- ✓ To display the value for outgoing call times, press (FNC), (\*), (3 sec), (1), then enter the registered two-digit Outgoing Call Timer access code.



- ✓ To manually reset the Outgoing Call Timer to 00:00, press (\*), (CLR).

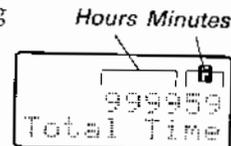
## Extended Features and Functions

⚠ The unit's Outgoing Call Timer access code has been set to 12 at the factory, but it may be changed if you desire. Please refer to the section entitled "User Programmable Codes."

⚠ The number you enter as an access code should be written down and stored safely!

### Cumulative Call Timer

The Cumulative Call Timer keeps a running total of on-line usage in hours:minutes format. This timer resets to 00:00 after 9999 hours and 59 minutes have been accumulated.



- ✓ To display the value of the Cumulative Call Timer press (FNC), (\*), (3 sec), (2 sec), and enter registered 2 digit Call-timer access code.



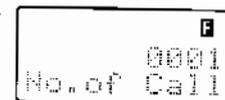
- ✓ To manually reset the call timer to 0:0 press (\*), (CLR).

⚠ While the unit's Call Timer code has been factory set as 12, it may be changed if so desired. Please refer to the section entitled "User Programmable Codes".

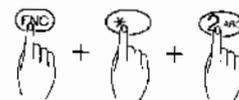
⚠ The number you enter as an "Access Code" should be written down and stored safely!

### Temporary Accumulated Call Counter

This feature is used to check the temporarily accumulated (reset to 0 on the 10,000th call) number of calls.



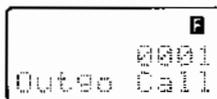
- ✓ To check the number of calls made press (FNC), (\*), (2 sec). If you wish to reset this total to 0 simply press (\*), (CLR) before exiting this mode.



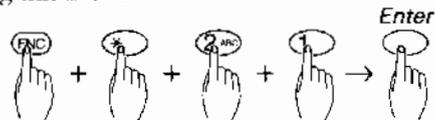
- ✓ To exit this mode press (END).

## Outgoing Call Counter

This feature is used to check the number of outgoing calls. It resets to 0 after the 10,000th call has been made.



- ✓ To check the number of outgoing calls that have been made, while the telephone is not in use, press (FNC), (\*), (2 ABC), (1), and enter the registered two-digit Outgoing Call Counter access code. If you wish to reset this total to 0, simply press (\*), (CLR) before exiting this mode.



- ✓ To exit this mode, press (CLR).

**!** The unit's Outgoing Call Counter access code has been set to 12 at the factory, but it may be changed if you so desire. Please refer to the section entitled "User Programmable Codes."

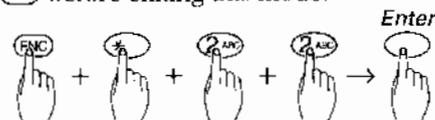
**!** The number you enter as an access code should be written down and stored safely!

## Accumulated Call Counter

This feature is used to check the accumulated number of calls. This total will reset to 0 on the 10,000th call.



- ✓ To check the number of calls made press (FNC), (\*), (2 ABC), (2 ABC), and enter registered 2 digit Call Counter access code while the telephone is not in use. If you wish to reset this total to 0 simply press (\*), (CLR) before exiting this mode.



- ✓ To exit this mode press (CLR).

**!** While the unit's Call Counter code has been factory set as 12, it may be changed if so desired. Please refer to the section entitled "User Programmable Codes".

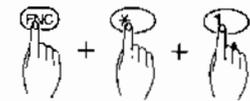
**!** The number you enter as an "Access Code" should be written down and stored safely!

## Call Time Warning Tone

A time warning tone option can be used to keep audible track of the elapsed time spent while using your phone. The tone will signal you as each minute passes during a call.



- ✓ To toggle the Warning Tone on or off press (FNC), (\*), (1) while not in use. The letters "BEEP ON" or "BEEP OFF" will appear in the display to indicate the mode's current setting.



### ◆ SID Management (NAM Option)

This feature enables you (by NAM option) to take advantage of a family of SID groups. This is a group of cellular systems in cities that your carrier owns or has special billing arrangements with. Your close family SID's (like brothers and sisters) will be billed at the same rate as your home billing and will be indicated as "Home" (i.e. both NO SVC and ROAM are off) on your display. More distant family SID's (like cousins) will be billed at a preferred rate. Your phone will display solid ROAM when using these groups of systems in their cities. When flashing ROAM is displayed, you are using a SID system that is not included in the NAM assigned groups.

If your display indicates flashing NO SVC, you will need to change your A/B switch selection or, please refer to Multiple City Registration to enable you to make a call.

If in question as to what SID (system identification) you are using, press **FNC** \* **6** to display the current SID.

### ◆ A/B System Selection

This feature permits you to select the system you need to use. The system that you are registered with is the preferred system, and your home system.

When you turn the unit on, the unit remembers the last position of the A/B system selected, and will start to scan the radio frequency channels of that selection.

If you want to confirm the current mode, press **FNC**, key **6** then **5**. Status indicator shows the current mode.

#### Standard Mode

Press **FNC**, key **6** then **0**. Status indicator shows "Standard", and both A and B system indicators will be displayed in the display panel.

The unit will scan the preferred system channels. If unable to find an acceptable preferred channel, the unit switches to scan the non-preferred system channels.



### System A Only Mode

Press **FNC**, key **6** then **1**. Status indicator shows "Sys A Only", and A system indicator will be displayed in the display panel.

The unit will scan the A system only and prevents switching over to the B system.



### System B Only Mode

Press **FNC**, key **6** then **2**. Status indicator shows "Sys B Only", and B system indicator will be displayed in the display panel.

The unit will scan the B system only and prevents switching over to the A system.



### Home Mode

Press **FNC**, key **6** then **3**. Status indicator shows "Home", and A B system indicators will not be displayed in the display panel.

You can place or receive calls only within your Home area.



### Family First Mode

Press **FNC**, key **6** then **4**. Status indicator shows "Family", and A B system indicators will not be displayed in the display panel.

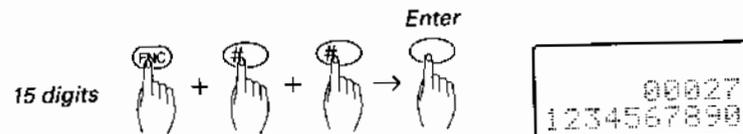


### ◆ Multiple City Registration

Some cellular users find it beneficial to register their phone in multiple cities, rather than rely on "roam". The multiple city registration feature permits you to reprogram from the telephone unit, the different phone numbers for the cities in which you are registered. Each programmed phone number will be designated as your home system.

Press **(CLR)**, and enter the new system ID number (5 digits) followed by the corresponding phone number (10 digits). Please include your area code. You must register your unit with the carrier in order to get both the system ID number and your phone number.

Press **(FNC)**, **(#)**, **(#)** and enter the 3-digit Lock code.



After programming new number the unit automatically wakes up again, and displays new phone number.

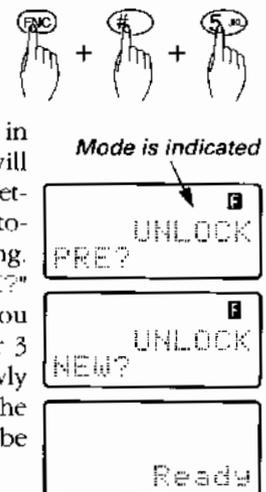
**!** System ID number and phone number can not be programmed during a call.

*Calls are placed or received using only the programmed phone number, in use at the time of call.*

### ◆ User Programmable Code

There are 4 user programmable codes used for data preservation and security purposes. The fact that they are "user programmable" allows the user to change these numbers customizing the system and furthering the security benefits.

- ✓ To change a code from the factory setting or previously modified setting, press **(FNC)**, **(#)**, **(5)**, and enter the number of the corresponding mode you wish modified (refer to "Mode #" in the table below). The mode name will appear in the display followed by the letters "PRE?". At this point enter the factory setting or previously modified setting. The word "NEW?" will replace the "PRE?" in the display panel at which time you may enter your newly contrived 2 or 3 digit code. Press **(SEND)** to save your newly entered code. Upon saving the code the unit release the mode and "Ready" will be displayed in the display panel.



- ✓ To correct an error made while entering keys, press **(END)** and repeat the process from the beginning.

**!** When contriving a 3 digit code, any 3 digits are acceptable except 911, 000, 119 and the 3 digit emergency number registered in the NAM.

**!** Always keep a record of any modified code numbers. They will be necessary to access corresponding features or to reenter new codes.

Mode Name	Mode #	Display	Factory Setting
Unlock	1	UNLOCK	123
Call Restriction	2	RESTR	123
Call Counter	3	COUNT	12
Call Timer	4	TIMER	12

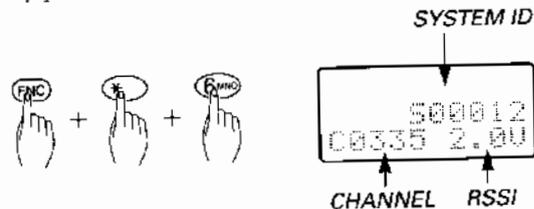
**!** The **UNLOCK** code is also used in the "Multiple City Registration" process.

### ◆ Current SID, RF Channel and RSSI Level Display

If necessary, you can see the RF channel status in which your unit is operating.

Press **FNC**, key **\*** then **6<sup>sec</sup>**.

The System ID, RF channel number and RSSI level will be displayed on the display panel.



If the NO SVC indicator is on, the SID will be shown as "S-----".

The display will remain on the panel until you manually reset it by pressing any key.

### ◆ Electronic Serial Number (ESN)

The cellular telephone has an electronically encoded serial number that may be displayed as desired.

- ✓ To display the Electronic Serial Number press **FNC**, **#**, **2<sup>sec</sup>**.
- ✓ To clear the display just press **CLR**.

### ◆ ANTI FRAUD SECURITY FEATURE

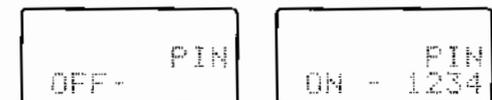
Your new Audiovox Cellular telephone has been engineered with the latest technology to help protect from the fraudulent use of your cellular telephone number.

Cellular fraud most often occurs by cellular thieves using electronic devices that can read your unique cellular phone number and your phone's electronic serial number (E.S.N). This information can then be programmed into another phone for fraudulent use.

Certain cellular systems provide for an ANTI FRAUD security feature to help protect the unauthorized use of your cellular telephone number. This feature utilizes a special personal identification number (PIN).

Should your cellular carrier offer this enhanced service, your new phone must be programmed with a PIN chosen by you. For your protection, you cannot make any outgoing calls until you have established your PIN. To establish your PIN, please contact your cellular service provider for specific instructions.

- ✓ To place a call using the ANTI FRAUD security feature.
  1. Enter the number you are calling by either dialing the number or recalling the number from a specific memory location.
  2. Press the **SEND** key. As your call is being processed the word "PIN" will flash in the display.
  3. Press the **SEND** key again. Your call will then be placed.
- ✓ To enter the PIN number and turn the ANTI FRAUD feature on or off.
  1. Press the **FNC**, **#**, **\***, and enter 3-digit registered unlock code.



## Extended Features and Functions

2. Your PIN number and the on/off status will appear in the display.
  3. Press the **(A)/(B)** buttons to turn the ANTI FRAUD feature on or off.
  4. After you have entered PIN number and selected the desired on or off status, press the **(STO)** key to store your selection.
  5. Press the **(END)** key to exit.
- ✓ To place a call with the ANTI FRAUD feature in one touch dialing.
1. Press the **(MT)** key for more than 0.5 seconds. The telephone number will appear in the display. As your call is being processed, the word "PLN" will flash on the display.
  2. Press the **(MT)** key again, your call will then be placed.

## Extended Features and Functions

### ◆ FUNCTION REVIEW

This feature shows you which numbered keys to use for different FNC key functions.

To review the function menu:

Press **(FNC)** then up **(A)** or down **(B)** button to enter this mode.

This mode can be released by pressing **(CLR)**, **(END)** or **(FNC)** button.

Scroll the menu up or down, pressing up **(A)** or down **(B)** button.

The display information will appear as follows:

	DISPLAY	KEY OPERATION	FUNCTION
1)	FN 0 5 AutoRedial	<b>(FNC)</b> + <b>(0)</b> + <b>(SEND)</b>	Redials Automatically.
2)	FN 1 ScratchPad	<b>(FNC)</b> + <b>(1)</b>	Stores to Scratch Pad Memory.
3)	FN 3 DTMF Tone	<b>(FNC)</b> + <b>(3 DEF)</b>	Mute and Unmute the DTMF Tone.
4)	FN 5 Lock	<b>(FNC)</b> + <b>(5 PA)</b> <b>+3-DIGIT CODE</b>	Locks the unit electronically.
5)	FN 8 S-Alert	<b>(FNC)</b> + <b>(8 PA)</b>	Turns the Silent Alert mode on and off.
6)	FN 9 A-Answer	<b>(FNC)</b> + <b>(9 PA)</b>	Turns the Automatic Answer mode on and off.
7)	FN 60 Standard	<b>(FNC)</b> + <b>(6 PA)</b> + <b>(0 DEF)</b>	Switches to the Standard scan mode.
8)	FN 61 Sys A Only	<b>(FNC)</b> + <b>(6 PA)</b> + <b>(1 DEF)</b>	Switches to the System A Only mode.
9)	FN 62 Sys B Only	<b>(FNC)</b> + <b>(6 PA)</b> + <b>(2 DEF)</b>	Switches to the System B Only mode.
10)	FN 63 Home	<b>(FNC)</b> + <b>(6 PA)</b> + <b>(3 DEF)</b>	Switches to the Home mode.
11)	FN 64 Family	<b>(FNC)</b> + <b>(6 PA)</b> + <b>(4 DEF)</b>	Switches to the Family First mode. (Home or Cousin)

## Extended Features and Functions

	DISPLAY	KEY OPERATION	FUNCTION
12)	FN #5 Disp Mode	<b>FNC</b> + <b>(6<sup>MO</sup>)</b> + <b>(5<sup>JK</sup>)</b>	Displays current scan mode.
13)	FN #8 ALPHA	<b>FNC</b> + <b>(*)</b> + <b>(0<sup>DEF</sup>)</b>	Enters the Alphanumeric entry mode.
14)	FN #1 Beep Tone	<b>FNC</b> + <b>(*)</b> + <b>(1)</b>	Turns the Call Time Warning Tone on and off.
15)	FN #2 No. of Call	<b>FNC</b> + <b>(*)</b> + <b>(2<sup>AB</sup>)</b>	Displays the temporarily accumulated number of calls.
16)	FN #3 Call Time	<b>FNC</b> + <b>(*)</b> + <b>(3<sup>DE</sup>)</b>	Displays the time of current or last call.
17)	FN #4 O-T-Emerg	<b>FNC</b> + <b>(*)</b> + <b>(4<sup>OP</sup>)</b> <b>+3-DIGIT CODE</b>	Turns the One Touch Emergency call mode on and off.
18)	FN #5 Call Rest.	<b>FNC</b> + <b>(*)</b> + <b>(5<sup>JK</sup>)</b> <b>+3-DIGIT CODE</b>	Activates the Call Restriction mode.
19)	FN #6 Disp RSSI	<b>FNC</b> + <b>(*)</b> + <b>(6<sup>NO</sup>)</b>	Displays the current SID, RF channel and RSSI level.
20)	FN #7 Disp Batt.	<b>FNC</b> + <b>(*)</b> + <b>(7<sup>PR</sup>)</b>	Displays the Battery Voltage.
21)	FN #8 Disp Digit	<b>FNC</b> + <b>(*)</b> + <b>(8<sup>TR</sup>)</b>	Displays the preceding digits.
22)	FN #21 Outgo Call	<b>FNC</b> + <b>(*)</b> + <b>(2<sup>AB</sup>)</b> <b>(1)</b> <b>+2-DIGIT CODE</b>	Displays the number of outgoing calls.
23)	FN #22 Total Call	<b>FNC</b> + <b>(*)</b> + <b>(2<sup>AB</sup>)</b> <b>(2<sup>AB</sup>)</b> <b>+2-DIGIT CODE</b>	Displays the accumulated number of calls.
24)	FN #31 Outgo Time	<b>FNC</b> + <b>(*)</b> + <b>(3<sup>DE</sup>)</b> <b>(1)</b> <b>+2-DIGIT CODE</b>	Displays the time of outgoing calls.
25)	FN #32 Total Time	<b>FNC</b> + <b>(*)</b> + <b>(3<sup>DE</sup>)</b> <b>(2<sup>AB</sup>)</b> <b>+2-DIGIT CODE</b>	Displays the cumulative call time.
26)	FN #90 Voice Vol	<b>FNC</b> + <b>(*)</b> + <b>(9<sup>NO</sup>)</b> <b>+ (0<sup>DEF</sup>) + (A) / (V)</b>	To adjust and display the earpiece volume level.

## Extended Features and Functions

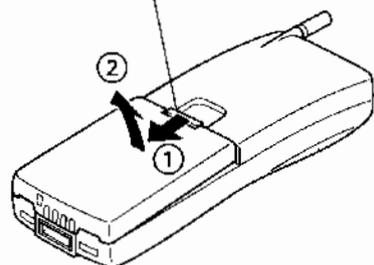
	DISPLAY	KEY OPERATION	FUNCTION
27)	FN #91 Alert Vol	<b>FNC</b> + <b>(*)</b> + <b>(9<sup>NO</sup>)</b> <b>+ (1) + (A) / (V)</b>	To adjust and display the alert sound output volume level.
28)	FN #92 Tone Vol	<b>FNC</b> + <b>(*)</b> + <b>(9<sup>NO</sup>)</b> <b>+ (2<sup>AB</sup>) + (A) / (V)</b>	To adjust and display the keypad tone volume level.
29)	FN #93 HF Vol	<b>FNC</b> + <b>(*)</b> + <b>(9<sup>NO</sup>)</b> <b>+ (3<sup>DE</sup>) + (A) / (V)</b>	To adjust and display the Hands-Free volume level. (available only when the HF mode.)
30)	FN #1 Own Phone	<b>FNC</b> + <b>(#)</b> + <b>(1)</b>	Displays own telephone number.
31)	FN #2 Disp ESN	<b>FNC</b> + <b>(#)</b> + <b>(2<sup>AB</sup>)</b>	Displays Electronic Serial Number (ESN).
32)	FN #3 Disp SIDH	<b>FNC</b> + <b>(#)</b> + <b>(3<sup>DE</sup>)</b>	Displays the Home System ID.
33)	FN #8 ChangeDTMF	<b>FNC</b> + <b>(#)</b> + <b>(8<sup>TR</sup>)</b>	Changes the keypad (DTMF) Tone Duration in conversation.
34)	FN #51 Change UL	<b>FNC</b> + <b>(#)</b> + <b>(5<sup>JK</sup>)</b> <b>+ (1)</b>	Changes the Unlock Code.
35)	FN #52 Change CR	<b>FNC</b> + <b>(#)</b> + <b>(5<sup>JK</sup>)</b> <b>+ (2<sup>AB</sup>)</b>	Changes the Call Restriction Access Code.
36)	FN #53 Change C-C	<b>FNC</b> + <b>(#)</b> + <b>(5<sup>JK</sup>)</b> <b>+ (3<sup>DE</sup>)</b>	Changes the Call Counter Access Code.
37)	FN #54 Change C-T	<b>FNC</b> + <b>(#)</b> + <b>(5<sup>JK</sup>)</b> <b>+ (4<sup>OP</sup>)</b>	Changes the Air Timer Access Code.
38)	FN ## PIN Number	<b>FNC</b> + <b>(#)</b> + <b>(*)</b> <b>+3-DIGIT CODE</b>	Enters PIN number entry mode.
39)	FN ## Multi Reg	<b>FNC</b> + <b>(#)</b> + <b>(#)</b> <b>+3-DIGIT CODE</b>	Multiple City Registration (Changes the phone number and SID)

## BATTERY OPERATION

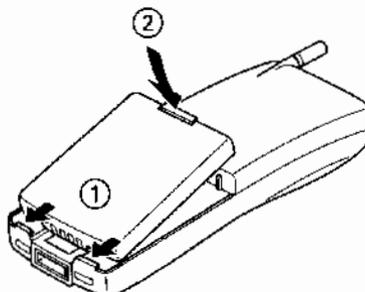
### Battery Replacement

#### Battery removal

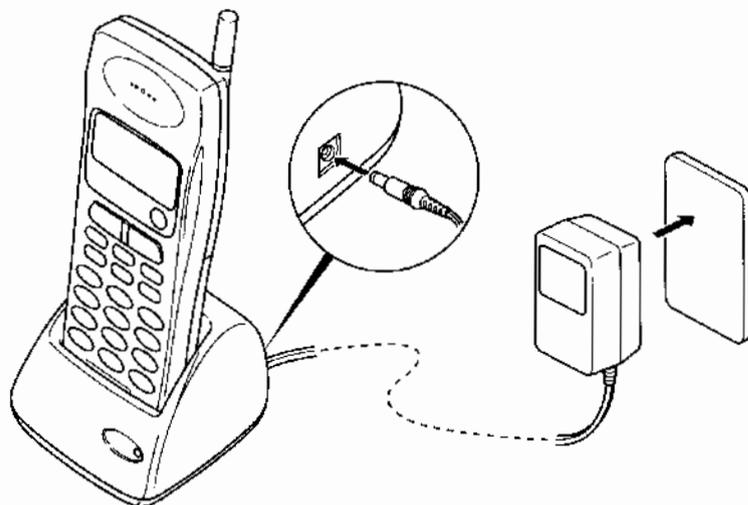
Battery Release Latch



#### Battery Insertion



#### Battery Charging

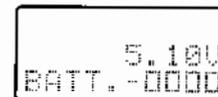


Ni-Cd

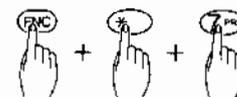
The product that you have purchased contains a rechargeable Battery. The Battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this Battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

### Battery Voltage Level

The battery's voltage level may be displayed at any time.

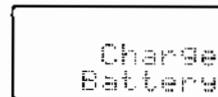


✓ To view the battery voltage level press the **FUNCTION** key (FNC), (\*), (7<sup>ms</sup>).



### Low Battery Warning

When the battery voltage decreases to a level where recharging is required, the message "Charge Battery" will flash in the display every second and an alarm tone will sound every 5 seconds. Under this condition there are only a few minutes left for call processing. If usage continues the amount of time left becomes even more critical and the displayed message flashes twice a second while the alarm tone sounds every second. A few moments after this condition occurs, the call is terminated and the phone automatically shuts down to a power off condition.



*Make sure to charge your battery before using your cellular telephone for the first time. The telephone will not operate without the presence of a charged battery.*

### ◆ Battery Charging

The battery charger can completely recharge your battery in about 8 hours. The green LED light on the charger unit will illuminate indicating the battery is being charged.

The green LED light will go out when the battery is finished charging.

- Do not discard the battery pack into fire.
- Do not "short out" the battery (direct connection of the + and - terminals on the battery).
- Do not use any batteries or chargers other than those specifically designed for use with this phone.
- Charge the battery indoors with the ambient temperature between 5°C and 40°C (41°F and 104°F).
- Do not use the charger in direct sunlight, or in high humidity places like a bathroom.
- Repeated partial charging and discharging of Nickel Cadmium (Ni-Cd) or Nickel Metal Hydride (Ni-MH) batteries results in a "memory" that reduces charging capacity. To avoid "memory effect" operate the phone until the battery is discharged completely.  
DO NOT recharge or "top-off" the battery pack by charging for short periods of time.
- An optimum value in this recharge process would be the purchase of a second or "spare" battery.

### ◆ GENERAL SPECIFICATIONS \*

Frequency Range:	
Transmit:	824,040 to 848,970 MHz
Receive:	869,040 to 893,970 MHz
Number of RF Channels:	832 Channels, Full Duplex
Channel Spacing:	30 KHz
Duplex Spacing:	45 MHz
Frequency Stability:	±2.5 PPM
Operating Temperature:	
Main Unit:	-22°F to +140°F (-30°C to +60°C)
Battery:	+5°F to +122°F (-15°C to +50°C)
Battery Charging Temperature:	+41°F to +104°F (5°C to +40°C)
Supply Voltage:	4.8 V - DC
Current Drain:	Talk : 550 mA Stand-by : 60 mA
RF Power Output:	0.6 W
Dimensions:	6.3" × 2.3" × 0.9" (159 mm × 60 mm × 24 mm)
Weight:	with Standard Ni-Cd Battery: 7.9 oz. (225g) with Slim profile Ni-MH Battery: 7.9 oz. (225g) with Extended life Ni-MH Battery: 8.5 oz. (241g)
Talk Time:	with Standard Ni-Cd Battery: 70 Minutes with Slim profile Ni-MH Battery: 70 Minutes with Extended life Ni-MH Battery: 120 Minutes Typical
Stand-by Time:	with Standard Ni-Cd Battery: 12 Hours with Slim profile Ni-MH Battery: 12 Hours with Extended life Ni-MH Battery: 20 Hours Typical

\* Subject to change without notice.

## TABLE OF KEY OPERATION

KEY OPERATIONS	FUNCTION	KEY OPERATIONS	FUNCTION
<b>FNC</b>	Turns on and off the unit.	<b>FNC</b> + <b>*</b> + <b>2 ABC</b>	Displays the temporarily accumulated number of calls.
<b>FNC</b> + <b>0 OPEN</b> + <b>SEND</b>	Redials Automatically.	<b>FNC</b> + <b>*</b> + <b>2 ABC</b> + <b>1</b>	Displays the number of outgoing calls.
<b>PHONE NO.</b> + <b>FNC</b> + <b>1</b>	Stores to Scratch Pad Memory.	<b>FNC</b> + <b>*</b> + <b>2 ABC</b> + <b>2 ABC</b>	Displays the accumulated number of calls.
<b>FNC</b> + <b>3 DEF</b>	Turns on and off the DTMF tone.	<b>FNC</b> + <b>*</b> + <b>3 DEF</b> + <b>1</b>	Displays the time of current or last call.
<b>FNC</b> + <b>5 JK</b> + <b>NAM code</b>	Locks the unit electronically.	<b>FNC</b> + <b>*</b> + <b>3 DEF</b> + <b>2 ABC</b>	Displays the time of outgoing calls.
<b>FNC</b> + <b>6 MNO</b> + <b>0 OPEN</b>	Switches to the Standard scan mode.	<b>FNC</b> + <b>*</b> + <b>3 DEF</b> + <b>2 ABC</b> + <b>NAM code</b>	Displays the cumulative call time.
<b>FNC</b> + <b>6 MNO</b> + <b>1</b>	Switches to the System A Only mode.	<b>FNC</b> + <b>*</b> + <b>4 GHI</b>	Turns the One Touch Emergency call mode on and off.
<b>FNC</b> + <b>6 MNO</b> + <b>2 ABC</b>	Switches to the System B Only mode.	<b>FNC</b> + <b>*</b> + <b>5 JK</b>	Activates the Call Restriction mode.
<b>FNC</b> + <b>6 MNO</b> + <b>3 DEF</b>	Switches to the Home mode.	<b>FNC</b> + <b>*</b> + <b>6 MNO</b>	Display the RSSI Level.
<b>FNC</b> + <b>6 MNO</b> + <b>4 SHI</b>	Switches to the Family First mode.	<b>FNC</b> + <b>*</b> + <b>7 PQR</b>	Displays the Battery Voltage.
<b>FNC</b> + <b>6 MNO</b> + <b>5 HI</b>	Displays current scan mode.	<b>FNC</b> + <b>*</b> + <b>8 TUV</b>	Displays the preceding digits.
<b>FNC</b> + <b>8 TUV</b>	Turns the Silent Alert mode on and off.	<b>FNC</b> + <b>*</b> + <b>9 WXY</b> + <b>0 OPEN</b>	To adjust and display the earpiece volume level.
<b>FNC</b> + <b>9 WXY</b>	Turns the Automatic Answer mode on and off.	<b>FNC</b> + <b>*</b> + <b>9 WXY</b> + <b>1</b>	To adjust and display the alert sound output volume level.
<b>FNC</b> + <b>*</b> + <b>0 OPEN</b>	Enters the Alphanumeric entry mode.	<b>FNC</b> + <b>#</b> + <b>1</b>	Displays own telephone number.
<b>FNC</b> + <b>*</b> + <b>1</b>	Turns the Call Time Warning Tone on and off.		

KEY OPERATIONS	FUNCTION	KEY OPERATIONS	FUNCTION
<b>FNC</b> + <b>#</b> + <b>2 ABC</b>	Displays the Electronic Serial Number (ESN).	<b>PHONE NO.</b> + <b>(STO)</b> + <b>(STO)</b>	Searches the vacant memory and stores the telephone number automatically.
<b>FNC</b> + <b>#</b> + <b>3 DEF</b>	Displays the Home System ID (SIDU).	<b>PHONE NO.</b> + <b>(FNC)</b> + <b>*</b> + <b>0 OPEN</b> + <b>INFO.</b> + <b>(STO)</b> + <b>(STO)</b>	Searches the vacant memory and stores the telephone number and alphanumeric information automatically.
<b>FNC</b> + <b>#</b> + <b>5 JK</b> + <b>1</b>	Changes the Unlock Code.	<b>(STO)</b> + <b>(A)</b> + <b>(V)</b>	Searches the vacant memory address to store.
<b>FNC</b> + <b>#</b> + <b>5 JK</b> + <b>2 ABC</b>	Changes the Call Restriction Access Code.	<b>(RCL)</b> + <b>#</b> + <b>0 OPEN</b> + <b>1</b> + <b>(2 ABC)</b>	Displays the telephone number of three latest calls.
<b>FNC</b> + <b>#</b> + <b>5 JK</b> + <b>3 DEF</b>	Changes the Call Counter Access Code.	<b>(RCL)</b> + <b>#</b> + <b>0 OPEN</b> + <b>SEND</b>	Redials the last number dialed.
<b>FNC</b> + <b>#</b> + <b>5 JK</b> + <b>4 GHI</b>	Changes the Air Timer Access Code.	<b>(RCL)</b> + <b>ADDRESS NO.</b>	Recalls the telephone number from the memory.
<b>FNC</b> + <b>#</b> + <b>8 TUV</b>	Changes the key pad (DTMF) Tone Duration in conversation	<b>(RCL)</b> + <b>*</b> + <b>ADDRESS NO.</b>	Adds the DTMF tone to the recalled number.
<b>FNC</b> + <b>#</b> + <b>*</b> + <b>3-DIGIT CODE</b>	Enters PIN number entry mode.	<b>(RCL)</b> + <b>(A)</b> + <b>(V)</b>	Recalls the telephone number in address order.
<b>FNC</b> + <b>#</b> + <b>#</b> + <b>NAM CODE</b>	Multiple City Registration (Changes the phone number and SIDH)	<b>FNC</b> + <b>*</b> + <b>0 OPEN</b> + <b>INFO.</b> + <b>(RCL)</b> + <b>(A)</b> + <b>(V)</b>	Searches the telephone number by alphanumeric characters.
<b>(CLR)</b>	Clears the last digit. If held in, erases the entire number from display.	<b>(M1)</b>	Switches the Mute mode on and off.
<b>(CLR)</b> + <b>END</b>	Clears the entire number from display.	<b>SEND</b>	Receives the call.
<b>PHONE NO.</b> + <b>(STO)</b> + <b>ADDRESS NO.</b>	Stores the telephone number in the memory.	<b>PHONE NO.</b> + <b>SEND</b>	Processes the call.
<b>PHONE NO.</b> + <b>(FNC)</b> + <b>*</b> + <b>0 OPEN</b> + <b>INFO.</b> + <b>(STO)</b> + <b>ADDRESS NO.</b>	Stores the telephone number and the alphanumeric information in the memory.	<b>END</b>	Terminates the call.

## 12 MONTH LIMITED WARRANTY

AUDIOVOX CORPORATION (the Company), warrants to the original retail purchaser of this Audiovox Cellular Telephone, that should this product or any part there of (except the items listed below), under normal use and conditions, be proven defective in material or workmanship within the first twelve (12) month period from the date of purchase, such defect(s) will be repaired or replaced (with new or rebuilt parts) at the Company's option, without charge for parts or labor directly related to the defect(s).

The following items, if supplied, are similarly warranted from the date of purchase for 90 Days-Retractable antenna, transportable antenna, rechargeable battery-pack, desk-top charger, AC/DC adapter, cigarette lighter adapter, carrying bag and bag hardware, wrist strap, travel charger.

To obtain repairs or replacement within the terms of this Warranty, the product should be delivered with proof of warranty coverage, specification of defect(s), transportation prepaid, to the Company at the address shown below.

In the United States call toll free to (800) 229-1235 [in NY State and other areas, call (516) 233-3410]

This Warranty does not apply to fuses, or costs incurred for removal, reinstallation, testing, evaluation, or to any product or part there of which has suffered through alteration, serial number defacement, improper installation, excessive temperature or humidity, environmental conditions, mishandling, misuse, neglect or accident. This Warranty is not assignable or transferable.

THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COM-

PANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

The Company disclaims liability for geographic coverage, inadequate signal to antenna, communications range or operation of the Cellular System as a whole.

ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 24 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER.

No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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IN U.S.A.: AUDIOVOX CORPORATION  
185 Oser Avenue, Hauppauge, New York  
11788 (516) 233-3300

IN CANADA: AUDIOVOX CANADA LTD.  
101-405D Britannia Road, East Mississauga,  
Ontario L4Z3E6 (905) 712-9299