

Applicant: Shintom Co., Ltd.

Transmitter Type: BFYT3017

***INSTALLATION GUIDE FOR  
CELLULAR CAR TELEPHONE***



288E\*\*\*\*

EXHIBIT 20  
PAGE 1 OF 52

## Important

**There are some basic rules that apply to most hardware installation procedures and need to be observed to prevent damage or injury.**

1. Always make sure that any power is disconnected to the vehicle before handling any electrical components like wiring, fuseboxes, connectors, etc.
2. Never force any connection between components, electrical connectors or the like.
3. Always use the proper tools for the task at hand. Using improper tools may cause damage to yourself, your vehicle, or your cellular telephone system.
4. Think through all the necessary steps of installation before actually beginning the procedure and equip yourself for all steps to be performed.
5. Always make sure your workspace and your tools are clean and tidy. The introduction of dirt or grease may hinder the performance of your cellular telephone and related components.

## Installation Procedure

### 1. Before we begin

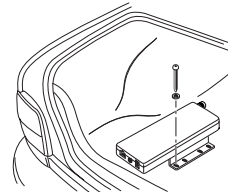
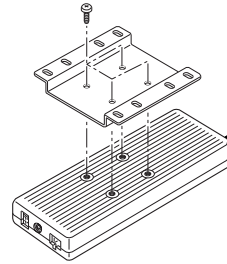
You will need the following items in order to properly install the cellular telephone in the trunk of an automobile.

- |                          |           |
|--------------------------|-----------|
| 1. Cradle                | (CR91)    |
| 2. Mounting Bracket      | (MT91)    |
| 3. Power Cable           | (EPC91)   |
| 4. Extension Cable       | (EIC91)   |
| 5. Clamshell Bracket     |           |
| 6. Screw kit             |           |
| (M4 × 6)                 | (SKM46)   |
| (M4 × 10)                | (SKM410)  |
| (M4 × 35)                | (SKM435)  |
| 7. Hands-Free Microphone | (MIC91)   |
| 8. Installation Guide    | (OMCMK**) |

## 2. Mount the Transceiver unit

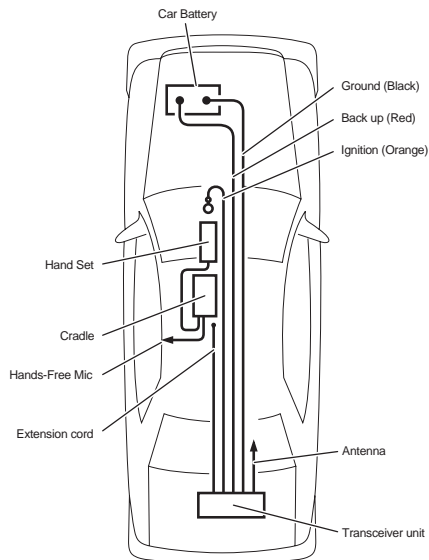
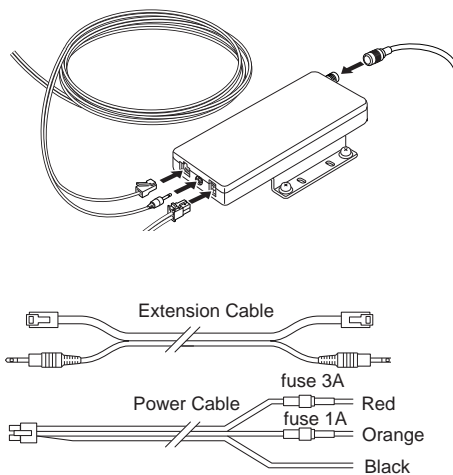
To install the cellular telephone with the transceiver unit located in the trunk-space of the automobile follow the steps outlined below.

- a. Place the mounting bracket so that the four bracket holes line up with the transceiver holes.
- b. Replace the four screws (supplied M4 × 6mm) in the screw kit so that the mounting bracket is secured to the transceiver unit.
- c. Place the unit top-side up (bracket feet down), utilizing the included flatwashers, insert the four self-tapping screws (supplied M4 × 35mm) and tighten them down.



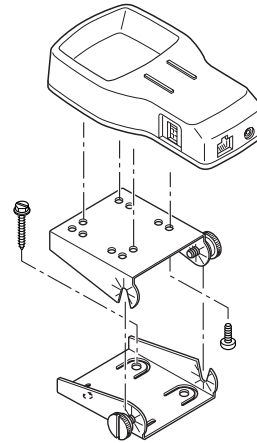
## 3. Wiring

- a. Connect the cables to the mounted transceiver unit using the supplied trunk mount extension cable as illustrated.

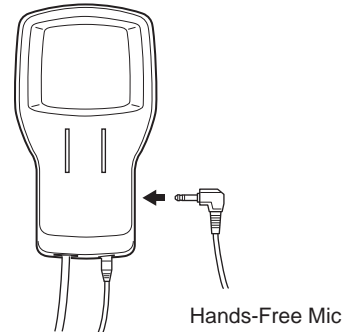
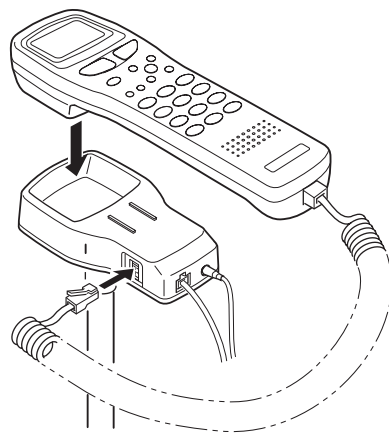


#### 4. Mount the Cradle and Handset

- a. Using a pedestal mount. The cradle unit can be mounted as displayed. Be sure to use only supplied M4 × 10mm screws. Using improper screws will damage the cradle unit.



- b. Plug in the handset and Hands-Free Mic.



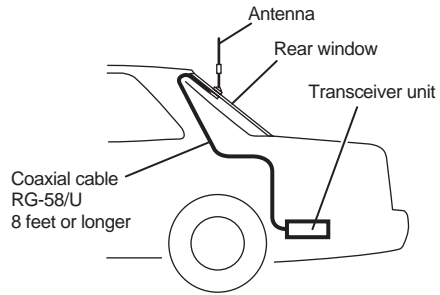
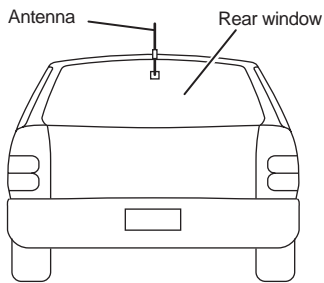
- c. Check to make sure ALL signal and power leads are in place and properly connected.

### 5. Antenna

The following is the standard antenna installation for TR93.

- Antenna type : Glass mount type - Colinear
- Mount location : Rear window of a vehicle
- Antenna cable : RG-58/U 8 feet (2.44m) or longer

Install the antenna on your vehicle as shown below.





*OPERATING INSTRUCTIONS*



*MOBILE CELLULAR TELEPHONE*

*TR93*

## **TR93 MOBILE CELLULAR TELEPHONE**

Congratulations. By choosing the TR93, 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 Mobile Cellular Telephone has been designed to the highest standards of quality and manufacturing excellence to fulfill both your personal and business requirements. The Audiovox TR93 is packed with advanced features like Programmable One Touch Emergency Dialing, Anti-Fraud Security Features, Automatic Call Retry, a Constant Signal Strength Indicator.

And of course, your new Audiovox TR93 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 your phone's functions and will help you make the most efficient use of this wonderful communications tool.

Following codes can be obtained through your selling Audiovox dealer.

- a. 3-digit Initial Lock (Unlock) Code
- b. 3-digit Initial Call Restriction Code
- c. 2-digit Initial Call Counter Code
- d. 2-digit Initial Call Timer Code

Keep these codes in a safe place!

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## **INTRODUCTION**

### **SAFETY INFORMATION FOR MOBILE PHONES**

#### **IMPORTANT**

#### **READ THIS INFORMATION BEFORE USING YOUR MOBILE CELLULAR TELEPHONE**

The cellular telephone is one of the most exciting and innovative electronic products ever developed. With it you can stay in contact with your office, your home, emergency services, and others.

**For the safe and efficient operation of your phone, observe these guidelines.**

Your mobile cellular telephone is a radio transmitter and receiver. When the phone is ON, the antenna is the part of the phone that sends out and receives radio frequency (RF) energy. The phone operates in the frequency range of 824 MHZ to 894 MHZ and employs commonly used frequency modulation (FM) techniques. When you use your phone, the cellular system handling your call controls the power level at which your phone transmits. The power level can range from 0.006 of a watt to 3 watts.

#### ***EXPOSURE TO RADIO FREQUENCY ENERGY***

In 1991 the Institute of Electrical and Electronics Engineers (IEEE), and in 1992 the American National Standards Institute (ANSI) updated the 1982 ANSI Standard for safety levels with respect to human exposure to RF energy. Over 120 scientists, engineers, and physicians from universities, government health agencies, and industry, after reviewing the available body of research, developed this updated Standard. In March, 1993, the U.S. Federal Communications Commission (FCC) proposed the adoption of this updated Standard. To operate within this updated ANSI Standard, use your phone as described under "Efficient Phone Operation."

#### ***EFFICIENT PHONE OPERATION***

Do not operate your mobile cellular telephone when holding the antenna, or when any person is within 4 inches (10 centimeters) of the antenna.

A person or object within 4 inches (10 centimeters) of the antenna could impair call quality, cause your phone to operate at a

higher power level than necessary, and expose that person to RF energy in excess of that established by the updated ANSI Standard.

For best call quality, keep the antenna free from obstructions and point it straight up.

If you want to limit RF exposure even further than the updated ANSI Standard, maintain a distance from the antenna of more than 4 inches (10 centimeters). Of course, you may also choose to control the duration of your calls.

### ***ANTENNA CARE AND REPLACEMENT***

Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Replace a damaged antenna immediately. Consult your manual to see if you may change the antenna yourself. If so, use only a manufacturer approved antenna. Otherwise, have your antenna repaired by a qualified technician.

Use only the supplied or an approved antenna. Non-approved antennas, modifications, or attachments could impair call quality, damage the phone, and violate FCC regulations.

### ***DRIVING***

Check the laws and regulations on the use of cellular telephones in the areas where you drive. Always obey them. Also, when using your phone while driving, please:

- give full attention to driving,
- use hands-free operation, if available, and
- pull off the road and park before making or answering a call if driving conditions so require.

### ***ELECTRONIC DEVICES***

Most modern electronic equipment is shielded from RF energy. However, RF energy from cellular telephones may affect inadequately shielded electronic equipment.

RF energy may affect improperly installed or inadequately shielded electronic operating and entertainment systems in motor vehicles. Check with the manufacturer or its representative to determine if these systems are adequately shielded from external RF energy. You should also check with the manufacturer of any equipment that has been added to your vehicle.

Consult the manufacturer of any personal medical devices (such as pacemakers, hearing aids, etc.) to determine if they are adequately shielded from external RF energy.

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

### ***AIRCRAFT***

Turn your phone OFF before boarding any aircraft.

- Use it on the ground only with crew permission.
- Do not use it in the air.

To prevent possible interference with aircraft systems, U.S. Federal Aviation Administration (FAA) regulations require you to have permission from a crew member to use your phone while the plane is on the ground. To prevent interference with cellular systems, FCC regulations prohibit using your phone while the plane is in the air.

### ***CHILDREN***

Do not allow children to play with your phone. It is not a toy. Children could hurt themselves or others (by poking themselves or others in the eye with the antenna for example). Children also could damage the phone, or make calls that increase your telephone bills.

### ***BLASTING AREAS***

To avoid interfering with blasting operations, turn your unit OFF when in a “blasting area” or in areas posted: “**Turn off two-way radio**”. Construction crews often use remote control RF devices to set off explosives.

### ***POTENTIALLY EXPLOSIVE ATMOSPHERES***

Turn your phone OFF when in any area with a potentially explosive atmosphere. It is rare, but your phone or its accessories could generate sparks. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fueling areas such as gas stations; below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

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

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

## FEATURES

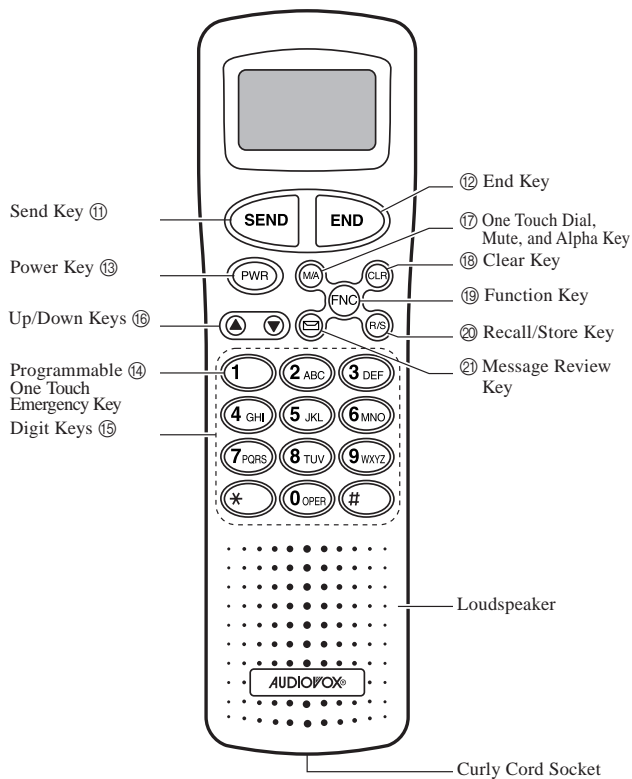
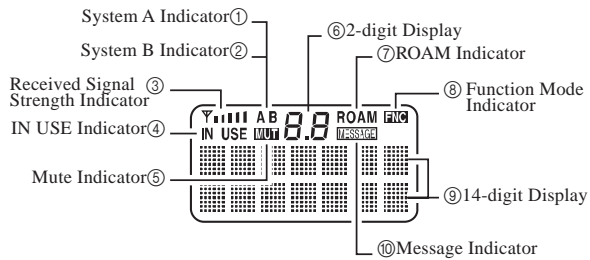
- SID management (programmable option)
- Multiple city registration
- Easy to read LCD display with alphanumeric and status indicators
- Back-lit keypad and LCD display
- Microphone mute control
- Priority/emergency calling with automatic retry
- 9 number speed dialing
- Automatic redial (programmable option)
- 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
- Programmable one touch dialing
- Programmable 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
- Anti-Fraud PIN feature capability
- Automatic lock (programmable option)
- Keypad disable in handsfree mode (programmable option)
- Link dialing

















This cellular telephone is also capable of supporting the following optional network services.

- 1) Caller ID
- 2) Voice Mail Notification
- 3) Short messaging Service

**Note: Your cellular service provider may use different terminology when referring to the enhanced features listed above. Please check with your cellular service provider for an explanation and availability of these enhanced features.**

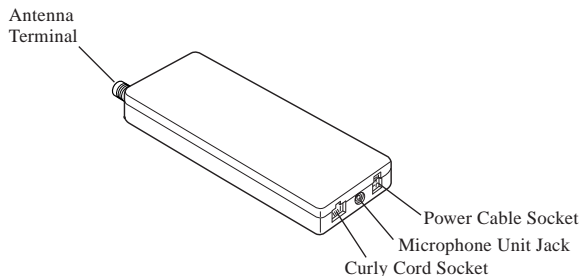
### KEY/DISPLAY NAMES AND FUNCTIONS



- ① **A** lights when the system A (non-wireline) is selected.
- ② **B** lights when the system B (wireline) is selected.
- Note:** **AB** lights when standard mode is selected.
- ③ Received Signal Strength Indicator  constantly displays the signal strength represented by the number of bars.
- ④ **IN USE** lights when a call is in progress.
- ⑤ **MUTE** lights when the mute control is in effect.
- ⑥ 2-digit display  shows the memory location number and the status of various functions.
- ⑦ **ROAM** lights when receiving services other than a registered home system.
- ⑧ **FUNC** lights when  is pressed to select extended functions, etc.
- ⑨ 14-digit display shows the telephone number dialed, etc.
- ⑩ **MESSAGE** flashes when Message is received where Enhanced Feature Service is provided.
- ⑪  initiates and answers a call.
- ⑫  terminates a call.
- ⑬  (Power) turns your phone on and off.
- ⑭  (Programmable One Touch Emergency Key) places a call to the programmed emergency number by a single key stroke.
- ⑮ Digit keys enter telephone numbers, alphanumeric information, etc.
- ⑯ Up/Down keys  and  adjusts the alert, earpiece and keypad tones.  and  are also used to select ON/OFF setting and scroll.
- ⑰  (One Touch Dial, Mute and Alpha Key):
  - In standby mode, the stored telephone number in the one touch memory is dialed with a single key stroke.
  - During conversation, switches off the microphone to mute your voice.
  - Used to enter alphanumeric characters.
- ⑱  (Clear) clears the digit(s) from the display.
- ⑲  (Function) is used with digit keys to allow operation of extended functions, etc.
- ⑳  (Recall/Store) recalls telephone numbers from the memory. Also used to store telephone numbers in the memory.
- ㉑  (Message) enters Message Review Mode.



## TRANSCEIVER CONNECTIONS



## INSTALLATION

### CAUTIONS:

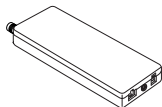
- Always make sure that any power is disconnected to the vehicle before handling any electrical components like wiring, fuseboxes, connectors, etc.
- Never force any connection between components, electrical connectors or the alike.
- Always use the proper tools for the task at hand. Using improper tools may cause damage to yourself, your vehicle, or your cellular telephone system.
- Think through all the necessary steps of installation before actually beginning the procedure and equip yourself for all steps to be performed.
- Always make sure your workspace and your tools are clean and tidy. The introduction of dirt or grease may hinder the performance of your cellular telephone and related components.

### PARTS LIST

Your TR93 Kit consists of following parts.

Please also refer to the Optional Parts List.

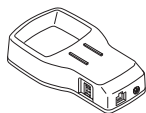
1. Transceiver unit (TR93)



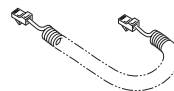
2. Handset (TH93)



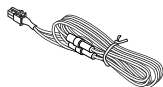
3. Cradle



4. Curly cord \* (CC91)



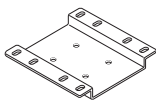
5. Power cable (EPC91)



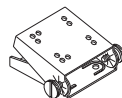
6. Extension cable (EIC91)



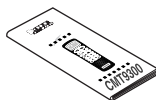
7. Mounting bracket (MT91)



8. Clamshell bracket



9. Operating instructions 10. Installation guide



\* Note: Use specified curly cord only.

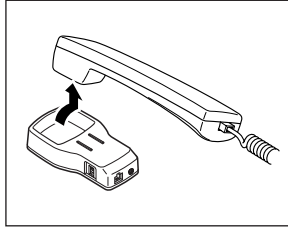
11. Screw kit  
(SKM46) ( SKM410 )

(SKM435)

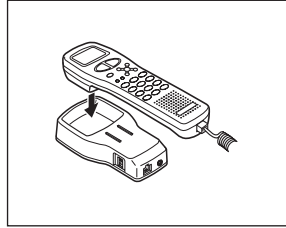
12. Hands-free  
microphone

## BASIC OPERATION

### Removing your Handset



### Replacing your Handset



## TURNING YOUR PHONE ON AND OFF

Your phone will be switched on or off with the vehicle's DC power as you turn the ignition key. If your phone remains off after switching on ignition (or vice versa), press and hold **(PWR)**. Upon power up, your own phone number will be displayed momentarily.

**Note: When "NO SVC" (No Service) is displayed, you cannot place or receive calls as the "Cellular System" is not available.**

To turn off your phone, press and hold **(PWR)** again.

### Display Own Telephone Number

Press **(FNC)**, **(#)**, **(1)**.

To clear the display, press **(CLR)**.

### Display Own System ID

Press **(FNC)**, **(#)**, **(3 DEF)**.


To clear the display, press **(CLR)**.

## PLACING CALLS

1. Enter the telephone number.
2. Press **(SEND)**.  
The **IN USE** indicator will light.
3. When you finish talking, press **(END)**.

**Example: To call 123-4567**

- Enter **1** **2ABC** **3DEF** **4GHI** **5JKL** **6MNO**  
**7PRS**.
- Press **SEND**.  
Talk with the other party.
- To terminate the call, press **END**.



#### To Correct Entered Digits:

- Press **CLR** to erase the last digit entered.
- Press and hold **CLR** to erase the whole number.

#### To View Whole Number (Hidden Digits):

Although you can enter up to 32 digits, the display can show the last 14 digits only. To view the whole number, press and hold **FNC** key. The hidden digits (over 14 digits) and the last 14 digits will scroll displaying “**1**” (for the last 14 digit), “**2**” (for the next 14 digits) and “**3**” (for the rest of upper digits).

#### Call-in Progress Protection

Even if **PWR** is pressed during conversation, your call is not interrupted.

### RECEIVING CALLS

1. When an incoming call is attempted, an alert tone will sound and “CALL” will flash repeatedly.
2. Press any key except **PWR**, **END**, **▲**, and **▼**.  
The **IN USE** will light and you can talk with the other party.
3. To terminate your call, press **END**.

#### Call in Absence Indication

If calls go unanswered, “CALL” and the number of unanswered calls will appear in the 2-digit display.

To clear the display, press **CLR**.

#### Silent Incoming Calls

When this feature is activated, a single beep and a flashing “CALL” message will alert you of an incoming call.

**Note: If the Silent Incoming Calls is activated, “Silent Alert on” will be displayed when your phone is powered up.**

**To Activate the Silent Incoming Calls:**

Press **(FNC)**, **(8TUV)**.

“Silent Alert ON” will be displayed.

To clear the display, press **(CLR)**.

**To Deactivate the Silent Incoming Calls:**

Press **(FNC)**, **(8TUV)** again.

“Silent Alert OFF” will be displayed.

To clear the display, press **(CLR)**.

**Automatic Answering**

When this feature is activated in handsfree mode, your phone will automatically answer an incoming call on the second alert.

**To Activate Automatic Answering:**

Press **(FNC)**, **(9WXYZ)**.

“Auto Answer ON” will be displayed.

To clear the display, press **(CLR)**.

**To Deactivate Automatic Answering:**

Press **(FNC)**, **(9WXYZ)** again.

“Auto Answer OFF” will be displayed.

To clear the display, press **(CLR)**.

**Notes:** • **Automatic Answering will function in handsfree mode only.**

- **Automatic Answering will not function if your phone is in the lock, call restriction, or silent incoming calls mode.**

- **If Automatic Answering is activated, “Auto Answer ON” will be displayed when your phone is powered up.**

**REDIALING FUNCTIONS****Last Three Numbers Dialed**

You can display and redial any of the last three telephone numbers you tried to call.

1. Select one of the telephone numbers out of three.
  - Press **(RS)**, **(#)**, **(0OPER)** to display the most recent number.
  - Press **(RS)**, **(#)**, **(1)** to display the second most recent number.
  - Press **(RS)**, **(#)**, **(2ABC)** to display the third most recent number.

2. Press  for redialing.

### **Automatic Redial (Programmable Option)**

If Automatic Redial is selected, your phone will automatically continue redialing in 20 seconds if the attempt to reach the cell site is not successful. The **IN USE** indicator will stay on, but the earpiece speaker will be muted.

**Note: Automatic Redial will initiate only on a “Cellular System” busy signal but not on a “Line” busy signal.**

## **MIC MUTE DURING CONVERSATION**

### **To Mute the Microphone:**

During conversation, press .

### **To Release Mute:**



During conversation, press  again.







**Note: The mute will be automatically released when the call is terminated.**

## **VOLUME ADJUSTMENT**

Your phone has 7-level volume controls each for the “Earpiece” volume, the alert level and the keypad tone level.







### **Earpiece Volume**

During conversation, press  or  to raise or lower the loudness of other party's voice.

While not in use, press , , , , to display “Voice”. Press  or  to adjust the earpiece Volume.

### **Alert Volume**

During ringing, press  or  to raise or lower the alert volume level.

While not in use, press , , , , to display “Alert”. Press  or  to adjust the Alert Volume.

### **Keypad Tone Volume**

In standby mode, press  or  to raise or lower the keypad tone volume level.

## ENHANCED OPERATION

### LOCKING/UNLOCKING THE PHONE

You can restrict outgoing calls except for the Programmable One Touch Emergency Call, Emergency (911, 000, 119), and the number stored in the emergency/priority dialing area. Your phone will receive calls normally even if it is locked.

#### Locking the Phone

1. Press **(FNC)**, **(5JKL)**.
2. Enter the 3-digit Unlock code.

**Notes:** • Please contact your selling Audiovox dealer to check the initial Unlock code.

- If your phone is locked, “Locked” will be displayed when your phone is powered up.

#### To Unlock the Phone:

While “Locked” is displayed, enter the 3-digit Unlock code.

#### Changing the Unlock Code

1. Press **(FNC)**, **(#)**, **(5JKL)**, **(1)**.  
“Unlock Pre?” will be displayed.
2. Enter the current 3-digit Unlock code.

**Note:** Please contact your selling Audiovox dealer to check the initial Unlock code.

“Unlock New?” will be displayed.

3. Enter a new 3-digit Unlock code except 911, 000, and 119.
4. Press **(END)**.

**CAUTION:** Keep the record of new code in a safe place!

### AUTOMATIC LOCK (PROGRAMMABLE OPTION)

You can automatically lock the phone by programmable option each time your phone is turned on.

The display shows “Locked” when your phone is turned on. Even in automatic lock mode, your phone will receive calls normally.

#### To Unlock the Phone:

Enter the 3-digit Unlock code.



**KEYPAD DISABLE FUNCTION IN  
HANDSFREE MODE  
(PROGRAMMABLE OPTION)**

This function prevents accidental or unintentional use of the keypad in handsfree mode.

When this function is activated by Programmable option, no key operations in handsfree mode are possible. The display shows "Keypad Disable" each time your phone is turned on.

**Note: Even in keypad disable mode, your phone will receive calls normally.**

**To Temporarily Release Keypad Disable Mode:**

Press and hold \* and # simultaneously.

"Keypad Disable" will disappear.

**To Return to Keypad Disable Mode:**

Press and hold \* and # simultaneously again.

"Keypad Disable" will be displayed.

### STORING IN THE MEMORY

You can store telephone numbers and names in 89 memory locations. Maximum 32 digits and 7 characters each can be stored in locations 1 to 20. Maximum 16 digits and 7 characters each can be stored in locations 21 to 89. (Entry of name can be omitted.)

### Name Entry Keys

To enter names, the following keys are used:

#### [Alphanumeric Character Entry Keys]

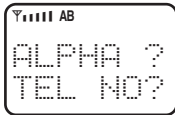
Key	Key Presses				
	1st	2nd	3rd	4th	5th
①	&	@	Space	1	
②ABC	A	B	C	2	
③DEF	D	E	F	3	
④GHI	G	H	I	4	
⑤JKL	J	K	L	5	
⑥MNO	M	N	O	6	
⑦PRS	P	Q	R	5	7
⑧TUV	T	U	V	8	
⑨WXY	W	X	Y	Z	9
⑩OPER	.	-	#	0	

#### [Editor Function Keys]

Key	Function
①#	Shifts cursor to the right.
②*	Shifts cursor to the left.
Press ③CLR	Deletes the character where the cursor is positioned.
Hold ④CLR	Deletes all the characters.

The following example shows how to enter the name JOHN. You can learn the characters behind the digit keys and how to move the characters with the cursor keys. Note this example illustrates how to enter a name but not actually store the name.

**Example: To enter the name JOHN**

- To enter name entry mode, press **CLP** **FNC** **MA**. "ALPHA" will blink.
 
- Enter the name JOHN.
 

Press **5** **#** **6**

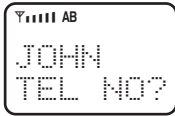
(J) (J) (JM)

**6** **6** **#** **4**

(JN) (JO) (JO ) (JOG)

**4** **#** **6** **6**

(JOH) (JOH ) (JOHM) (JOHN)


- Press **END** to terminate this example.

### Manual Storage

Telephone numbers and names can be stored manually into the memory locations 01 to 89.

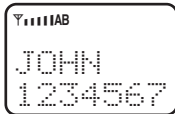
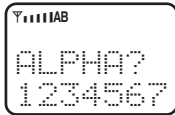
- Press **CLP**, then enter the telephone number.
- Enter the name.
  - Press **FNC**, **MA**. "ALPHA?" will blink.
  - Enter the name with the name entry keys.
- Press **FNC**, **RS**. "Store ?" will be displayed.
- Enter a 2-digit location number (01-89). After the momentary display of "Stored", the stored memory location number, the telephone number and name remain displayed.
- Press **CLP**.

**Note: If the selected memory location number is already used, the previous information will be overwritten.**

The following examples show how to store the telephone number together with name, as well as how to store telephone number alone.

**Example 1: To store telephone No. 123-4567 with name JOHN in memory location No. 10**

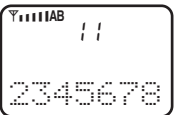
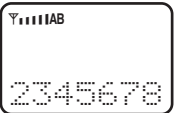
1. Press (CLR), then enter (1) (2ABC) (3DEF) (4GHI) (5JKL) (6MNO) (7PRS).
2. Press (FNC) (MA).  
"ALPHA?" will blink.
3. Enter the name JOHN with the name entry keys.
4. Press (FNC) (R/S). "Store ?" will be displayed.
5. Enter (1) (OPER). After the momentary display of "Stored", the stored memory location number, telephone number and name will be displayed.
6. Press (CLR) to clear the display.



**Note: If telephone number is not entered before pressing (FNC) (MA) "TEL NO?" is displayed. In this case, press (M/A) to enter the telephone number.**

**Example 2: To store telephone No. 234-5678 alone in memory location No. 11**

1. Press (CLR), then enter (2ABC) (3DEF) (4GHI) (5JKL) (6MNO) (7PRS) (8TUV).
2. Press (FNC) (R/S).
3. Enter (1) (1) while the telephone number is blinking.
4. Press (CLR) to clear the display.



### Automatic Storage

You can automatically store telephone numbers and names in vacant memory locations. (You may choose to omit names.)

1. Press **CLP**, then enter the telephone number.
2. Enter the name.
  - 1) Press **FNC**, **MA**. "ALPHA?" will blink.
  - 2) Enter the name with the name entry keys.
3. Press **FNC**, **R/S**, **R/S**.  
The telephone number and name are automatically stored in the first available vacant memory location.
4. Press **CLP**.

**Note: If there is no available location, "Memory Full" will be displayed. In this case, choose a memory location that you wish to overwrite with the new information (Name, Number).**

**Example: To automatically store telephone No. 345-6789 with name JOHN in vacant memory**

1. Press **CLP**, then enter **3DEF** **4GHI** **5JKL**  
**6MNO** **7PRS** **8TUV** **9WXY**.
2. Enter the name.
  - 1) Press **FNC**, **MA**. "ALPHA?" will blink.
  - 2) Enter the name with the name entry keys.
3. Press **FNC**, **R/S**, **R/S**.  
The telephone number and name are automatically stored in the vacant memory location 12, for example.
4. Press **CLP**.

Y■■■■IAB 12  
JOHN  
3456789

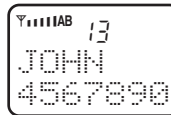
### Storage After Vacant Memory Location Search

You can search for unused memory locations to which telephone numbers and names can be stored. (You may choose to omit names.)

1. Press **CLP**, then enter the telephone number.
2. Enter the name.
  - 1) Press **FNC**, **MA**. "ALPHA?" will blink.
  - 2) Enter the name with the name entry keys.
3. Press **FNC**, **R/S**.
4. Press **▲** or **▼** to search for the desired vacant memory location.
5. Press **R/S** to store in that memory location.
6. Press **CLP**.

**Example: To store telephone No. 456-7890 with name JOHN in the vacant memory location No. 13**

1. Press **(M/A)**, then enter **(4 GHI) (5 JKL) (6 MNO) (7 PRS) (8 TUV) (9 WXY) (0 PER)**.
2. Enter the name.
  - 1) Press **(FNC) (M ALPHA)**. "ALPHA?" will blink.
  - 2) Enter the name with the name entry keys.
3. Press **(FNC) (R/S)**.
4. Press **(▲)** or **(▼)** to search for vacant memory location 13, for example.
5. Press **(R/S)**.
6. Press **(CLR)**.



**Notes:** • To exit the Vacant Memory Location Search function, press **(END)**.

- If there is no available location, "Memory Full" will be displayed. In this case, choose a memory location that you wish to overwrite with new information (Name, Number).

## EDITING THE TELEPHONE NUMBERS AND NAMES

You can edit the telephone numbers or names as required.

### Editing the Telephone Numbers

**To Change the Telephone Number of Location No. XX (01-89):**

1. Press **(CLR)**, then enter a new telephone number.
2. Press **(FNC) (R/S)**. The entered telephone number will blink.
3. Enter 2-digit location number **(X) (X)** to store the new number.

**To Delete the Telephone Number of Location No. XX (1-89):**

1. To display the telephone number, follow one of the next procedures.
  - To search for the telephone number, press **(R/S)**, then **(▲)** / **(▼)**.
  - Press **(R/S) (X) (X)**.
2. Press **(CLR)**. "Memory Clear ?" will be displayed.
3. Press **(CLR)** again. "Memory Cleared" will be displayed.

### Editing the Names

To edit the name of location No. XX (1-89), follow the next steps.

1. Press **(R/S)**, and enter **(X)/(X)(X)**.
2. Press **(FNC)**, **(MA)**.
3. Edit the name with the name entry keys.
4. Press **(FNC)**, **(R/S)**, **(R/S)** to store the new name.

**Note: To exit the editing mode, press **(END)** at any time.**

### Editing Phone Number under stored Name

To edit phone number under stored name, follow the next steps.

1. Press **(FNC)**, **(MA)**.
2. Enter the name with the name entry keys.
3. Enter **(R/S)**, **(▲)**/**(▼)** for direct search.
4. Press **(MA)**, **(MA)** to set phone number edit mode.
5. Enter new Phone No.
6. Press **(FNC)**, **(R/S)**, **(R/S)** to store.
7. Press **(CLR)** to clear the display.

### Memory Search

When you wish to search the memory information:

1. Press **(R/S)**, "Recall" will be displayed.
2. Press **(▲)** or **(▼)** to scroll up/down memory information.

**Note: Holding **(▲)** or **(▼)** automatically scrolls up/down memory information.**

## RECALLING NUMBERS FROM MEMORY

### Memory Dialing

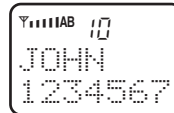
Telephone numbers can be recalled and dialed from one of any 89 different memory locations.

1. Press **(R/S)**.
2. Enter the 1 or 2 digit location number (1-89).  
The telephone number and name will appear.
3. Press **(SEND)** to initiate dialing.

**Note: If nothing is stored in a particular memory location, "Memory Empty" will be displayed. In this case, check the memory location with Memory Search.**

**Example: To place a call using memory location No. 10**

1. Press **(R/S)**.
2. Enter **(1)** **(OPER)**.
3. Press **(SEND)**.

**Dialing after Telephone Number Search**

You can scan, recall and dial numbers stored in memory locations 1 through 89.

1. Press **(R/S)**.
2. Press **(▲)** or **(▼)** to scroll up or down the memory locations.
3. If your desired telephone number is displayed, press **(SEND)** to initiate dialing.

**Note: To exit the search mode, press **(END)** at any time.**

**Dialing after Name Search**

You can dial after searching for telephone numbers by their names.

1. Press **(CLR)** **(FNC)**, **(MR)**.  
“ALPHA?” will blink.
2. Enter the beginning part of name with the digit keys.  
Example: Enter J, JO, or JOH for JOHN.
3. Press **(R/S)**. “Search” will be displayed.
4. Press **(▲)** or **(▼)** to search for the desired name.
5. Press **(SEND)** to initiate dialing.

**Notes:** • If no name was found, “Not Found” will be displayed in step 4. Enter another character(s) to continue name search.

• To exit from the search mode, press **(END)** at any time.

**Speed Dialing**

You can place a call from the stored memory locations 1 to 9 using the keys **(1)** to **(9WXY)**.

1. Press one of keys **(1)** to **(9WXY)**.
2. Press **(SEND)** to initiate dialing.



## LINK DIALING

When you receive service such as Voice Mail from your cellular service provider, you can dial a number and make Link Dialing with **(M/A)** key only.

Five Link Dialing Memories (M1 to M5) are provided with your phone.

### Storing Number in Link Dialing Memory

1. Enter a number to be stored.
2. To store the number as non-secret number, press **(FNC)** **(R/S)** **(M/A)** and enter Link Dialing Memory Number.  
To store the number as secret number, press **(FNC)** **(R/S)** **(#)** **(M/A)** and enter Link Dialing Memory Number.

**Note: Maximum 16 digits will be stored in each Link Dialing Memory. When you try to store more than 16 digits, the lastly entered 16 digits will be valid.**

### Recalling number from Link Dialing Memory

1. To recall a non-secret number from a Link Dialing Memory, press **(R/S)** **(M/A)** and enter Link Dialing Memory Number.  
To recall a secret number from a Link Dialing Memory, press **(END)**, 3-digit lock code, **(R/S)** **(M/A)** and enter Link Dialing Memory Number.

### Making Link Dialing

1. To display a Link Dialing Number stored in "M1", press **(M/A)**.

**Note: When a Link Dialing number is stored as secret, "Secret" will be displayed.**

- To dial the Link Dialing Number and activate Link Dialing, keep holding **(M/A)**.
2. To transmit DTMF signals for numbers stored in M2 to M5, press **(M/A)** each time during a call.

**Notes: • When a number is stored as secret number, "Secret" will be displayed.**

- When PIN mode is ON, "PIN" will flash.  
In this case, press **(M/A)** or **(SEND)** to send the PIN first.**
3. To exit from Link Dialing mode, press **(CLR)**.

## ONE TOUCH DIALING

You can place a call with **(MA)** key after storing a telephone number in the one touch memory assigned to **(MA)** key.

### Storing in the One Touch Memory

1. Press **(CLR)**, then enter a telephone number.
2. Press **(FNC)**, **(R/S)**, **(MA)**.

**Note: The stored telephone number can be reviewed by pressing **(R/S)**, **(MA)**.**

### Placing a Call with One Touch Memory

1. Press and hold **(MA)**.
2. The telephone number appears, and the **IN USE** indicator will light as a call is placed.

## PROGRAMMABLE ONE TOUCH EMERGENCY CALL

You can place an emergency call with **(1)** key alone, even when the phone is in lock and/or call restriction mode. 911 is the preset emergency number. You can reprogram this number with another number (up to 7 digits) if you wish. Also, you can deactivate this feature to avoid an unintentional call by mistake.

### Placing One Touch Emergency Call

1. Press and hold **(1)** for 2 seconds.  
The pre-programmed emergency number will appear, and the **IN USE** indicator will light as a call is placed.

### One Touch Emergency Call ON/OFF

1. Press **(FNC)**, **(\*)**, **(4 GHI)**.
2. Enter the 3-digit Unlock code.
3. Press **(▲)** to select “**ON**”, or **(▼)** to select “**OFF**”.
4. Press **(R/S)** to store and exit.
5. Press **(CLR)** to clear the display.

### Programming a New Emergency Number

1. Press **(FNC)**, **(\*)**, **(4 GHI)**.
2. Enter the 3-digit Unlock code.
3. Enter a new emergency number (Max. 7 digits).
4. Press **(R/S)** to store and exit.
5. Press **(CLR)** to clear the display.

## SCRATCH PAD MEMORY

As a sort of numerical note pad, you can enter up to 7 entries in special memory locations (memory locations 90 to 96) of up to 32 digits each. Also, you can place a call from the scratch pad memory. The 8th entry scrolls the scratch pad memory and the number entered first is erased.

**Note: Contents of the scratch pad memory will not be cleared even if the phone is turned off.**

### Storing Numbers in the Scratch Pad Memory

1. Press **CLR** and enter a number you wish to store (up to 32 digits).
2. Press **FNC**, **1**.

### Dialing Numbers in the Scratch Pad Memory

1. Press **R/S**.
2. Enter one of the location numbers (90 to 96).  
Example: Enter **9WXY** **0OPER** to recall the last number entered.
3. Press **SEND** to initiate dialing.

## EMERGENCY AND PRIORITY DIALING

You can store a single telephone number up to 32 digits for emergency or priority purpose. The memory location 97 is reserved for this purpose.

### Storing the Emergency and Priority Number

1. Press **CLR**, then enter the telephone number.
2. Press **FNC**, **R/S**.
3. Enter **9WXY**, **7PRS** while the telephone number is blinking.
4. Press **CLR** to clear the display.

### Dialing the Emergency and Priority Number

1. Press **R/S**, **9WXY**, **7PRS**.
2. Press **SEND**.

**Note: The emergency and priority number will automatically be redialed up to 3 times at 50 second intervals or until a connection is made. During redialing sequence, "Priority Dial" will be displayed indicating that this feature is in operation.**

## EXTENDED FEATURES AND FUNCTIONS

### CALL RESTRICTION

In the call restriction mode, only specific keys are effective to prevent unauthorized operation of the phone. Only the following keys are operative to place a call.

1) Any combination of numbers 1 and 2 for a call:

- $\text{RS} + (1, 2, 11, 12, 21, 22) + \text{SEND}$

2) Emergency Calls:

- $\text{RS} + 9 + 7 + \text{SEND}$

- $9 + 1 + 1 + \text{SEND}$

- $0 + 0 + 0 + \text{SEND}$

- $1 + 1 + 9 + \text{SEND}$

3) One Touch Emergency Call:

- Holding  $\text{1}$  for 2 seconds.

**Note: You can receive a call even if the phone is in the call restriction mode.**

#### To Activate Call Restriction

1. Press  $\text{FNC}$ ,  $\text{*}$ ,  $\text{5 JKL}$ .
2. Enter the 3-digit Call Restriction code.

**Note: Please contact your selling Audiovox dealer to check the initial Call Restriction code.**

“CR” will be displayed to indicate that call restriction is in effect.

**Note: The call restriction is effective until it is deactivated. When the power is turned on, “CR” will be displayed. (“Locked” will be displayed if the phone is locked.)**

#### To Exit Call Restriction Mode:

While “CR” is displayed, enter the 3-digit Call Restriction code. Then, “Regular” will be displayed. To clear the display, press  $\text{CLR}$ .

#### To Change the Call Restriction Code

1. Press  $\text{FNC}$ ,  $\text{\#}$ ,  $\text{5 JKL}$ ,  $\text{2 ABC}$ .  
“Restr. Pre?” will be displayed.
2. Enter the current 3-digit Call Restriction code.  
“Restr. New?” will be displayed.
3. Enter a new 3-digit Call Restriction code except 911, 000, and 119.
4. Press  $\text{RS}$ .

**CAUTION: Keep the record of new code in a safe place!**

**Note: If you enter a wrong code in step 2, your phone returns to standby mode.**

## 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 the memory. By sending the DTMF signals, you can access special services such as voice mail and answering machines that require long duration tone.

### Keypad (DTMF) Tones Duration Selection

To toggle the Long Tone and Short Tone for the time duration of DTMF tones, press **FNC**, **#**, **8TUV**.

### Keypad (DTMF) Tones Mute during conversation

To mute the keypad (DTMF) tone, press **FNC**, **3DEF** during conversation.

To enable the keypad (DTMF) tones, press **FNC**, **3DEF** again during conversation.

## Sending DTMF Tones During a Call

### From the Keypad:

1. During a call, press any key on the keypad.

### From the Memory:

1. During a call, press **MR**, **\***.
2. Enter a 2-digit memory location (01-89).

## TIMER AND COUNTER FUNCTIONS

### Elapsed Time Display

You can display the elapsed time of the current call or last call while not in use.

1. Press **FNC**, **\***, **3DEF**, **0OPER**.

“Time mm:ss” will be displayed. (mm: Minutes, ss: Seconds)

2. Press **CR** to exit this mode.

**Note: The time count will automatically reset to 00:00 after 99 minutes and 59 seconds.**

### Outgoing Call Timer

You can display your outgoing call time.

1. Press **(FNC)**, **(\*)**, **(3DEF)**, **(1)**.
2. Enter the 2-digit Call Timer code.

**Note: Please contact your selling Audiovox dealer to check the initial Call Timer code.**

“Outgo-T hhhh:mm” will be displayed. (hhh: Hours, mm: Minutes)

To exit this mode, press **(CLR)**.

To reset the Outgoing Call Timer to 0000:00, press **(\*)**, **(CLR)**.

**Note: The timer will automatically reset to 0000:00 after 9,999 hours and 59 minutes.**

### Cumulative Call Timer

You can display a running total of on-air usage.

1. Press **(FNC)**, **(\*)**, **(3DEF)**, **(2ABC)**.
2. Enter the 2-digit Call Timer code.

**Note: Please contact your selling Audiovox dealer to check the initial Call Timer code.**

“Total-T hhhh:mm” will be displayed. (hhh: Hours, mm: Minutes)

To exit this mode, press **(CLR)**.

To reset the Cumulative Call Timer to 0000:00, press **(\*)**, **(CLR)**.

**Note: The timer will automatically reset to 0000:00 after 9,999 hours and 59 minutes have been accumulated.**

### Temporary Accumulated Call Counter

You can display the temporary accumulated number of calls.

1. Press **(FNC)**, **(\*)**, **(2ABC)**, **(0OPER)**.

“Call XXXX” will be displayed. (XXXX: Number of calls)

To exit this mode, press **(CLR)**.

To reset the total number to 0000, press **(\*)**, **(CLR)**.

**Note: The call counter will automatically reset to 0 after 9,999 calls.**

### Outgoing Call Counter

You can check the accumulated number of outgoing calls.

1. Press **(FNC)**, **(\*)**, **(2ABC)**, **(1)**.
2. Enter the 2-digit Call Counter code.

**Note: Please contact your selling Audiovox dealer to check the initial Call Counter code.**

“Outgo-C XXXX” will be displayed. (XXXX: Number of outgoing calls)

To exit this mode, press **(CLR)**.

To reset the Outgoing Call Counter to 0000, press **(\*)**, **(CLR)**.

**Note: The call counter will automatically reset to 0 after 9,999 calls.**

### Accumulated Call Counter

You can check the accumulated number of calls.

1. Press **(FNC)**, **(\*)**, **(2ABC)**, **(2ABC)**.
2. Enter the 2-digit Call Counter code.

**Note: Please contact your selling Audiovox dealer to check the initial Call Counter code.**

“Total-C XXXX” will be displayed. (XXXX: Number of calls)

To exit this mode, press **(CLR)**.

To reset the Accumulated Call Counter to 0000, press **(\*)**, **(CLR)**.

**Note: The call counter will automatically reset to 0 after 9,999th call has been made.**

### To Change the Call Timer/Call Counter Codes

- In case of Call Timer code change, press **(FNC)**, **(#)**, **(5JKL)**, **(4GHI)**.

“Timer Pre?” will be displayed.

- In case of Call Counter code change, press **(FNC)**, **(#)**, **(5JKL)**, **(3DEF)**.

“Counter Pre?” will be displayed.

2. Enter the current code.

**Note: Please contact your selling Audiovox dealer to check the initial code.**

“Timer New?” or “Counter New?” will be displayed.

3. Enter a new 2-digit code.
4. Press **(END)**.

**CAUTION: Keep the record of new codes in a safe place!**

### Call Time Warning Tone

You can turn the Call Time Warning Tone on and off. When it is set to on, a single warning tone will be heard every 1 minute and a double warning tone will be heard every 5 minutes during a call.

#### To Turn the Warning Tone ON:

1. Press **FNC**, **\***, **1** while not in use.  
"Beep Tone ON" will be displayed.
2. Press **CLR** to clear the display.

#### To Turn the Warning Tone OFF:

Press **FNC**, **\***, **1** again while not in use. On/off toggles and "Beep Tone OFF" will be displayed.

### SID MANAGEMENT (PROGRAMMABLE OPTION)

You can take advantage of a family of SID (System Identification) groups by this Programmable option. This is a group of cellular systems in cities that your carrier owns or has special billing arrangements with. Your close family SID's will be billed at the same rate as your home billing. (Both **NO SUC** and **ROAM** are off.) More distant family SID's will be billed at a preferred rate. Your phone will display solid **ROAM**. When flashing **ROAM** is displayed, you are using a SID system that is not included in the groups assigned at the time of programming.

If your display indicates **NO SUC**, you will need to change your A/B system selection or, please refer to Multiple City Registration to change phone registration to enable you to make a call.

**Note: For specific information regarding special billing arrangements, please consult your cellular service provider.**

### A/B SYSTEM SELECTION

You can select the system you need to use. The system that you are registered with is the preferred system and your home system.

1. Press **FNC**, **6MNO**.
2. Press **▲** or **▼** until your desired system is displayed.
3. Press **END**.

**Note: When you turn the phone on, the phone will start to scan the system of the last power-off.**



**Standard Mode:**

Your phone will scan the preferred system channels. If unable to find an acceptable preferred channel, your phone switches to scan the non-preferred system channels. “**A B**” will light in the display.

**System A Only Mode:**

Your phone will scan the system A only. “**A**” will light in the display.

**System B Only Mode:**

Your phone will scan the system B only. “**B**” will light in the display.

**Home Mode:**

Your phone will scan preferred system and Brother/Sister system channels.  
You can place or receive calls only within your Home area.

**Family Mode:**

Your phone will scan both systems A and B regardless of Brother/Sister or Cousin system channels.

**MULTIPLE CITY REGISTRATION**

You can reprogram the different phone numbers for the cities in which you are registered. Each programmed phone number will be designated as your home system.

**Note: To use this feature, you must register your phone with the carrier in order to get both the system ID number and your phone number.**

**To Program the Phone Number:**

1. Press **(C/P)**, then enter the new system ID number (5 digits).
2. Enter corresponding phone number including your area code (10 digits)
3. Press **(F/C)**, **(#)**, **(#)**.
4. Enter the 3-digit Unlock code.

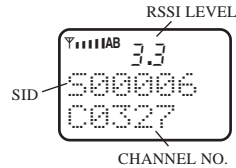
After programming the new number, your phone automatically wakes up again, and displays the new phone number.

**Note: Calls are placed or received using the programmed phone number only.**

## CURRENT SID, CHANNEL AND RSSI LEVEL DISPLAY

You can see the current SID (System Identification), channel No. and RSSI level at a time. The RSSI is the signal strength of the current channel of operation represented in voltage. The higher voltage shows the better connection and clearer communications.

1. Press **FNC**, **✖**, **6MNO**.
2. To clear the display, press **CLR**.



## ELECTRONIC SERIAL NUMBER (ESN)

Press **FNC**, **#**, **2ABC** to display your ESN.

To clear the display, press **CLR**.

## ANTI FRAUD SECURITY FEATURE (PIN Feature)

If your cellular carrier offers Personal Identification Number (PIN) service, your new phone must be programmed with your PIN. For your protection, you cannot make any outgoing calls until establishing your PIN. Please contact your cellular service provider for specific instructions.

### To Place a Call Using the PIN service:

1. Enter the telephone number.
2. Press **SEND**.  
"PIN" will flash in the display.
3. Press **SEND** again. Your call will then be placed.

### To Enter the PIN and Turn the PIN Feature ON or OFF:

1. Press **FNC**, **#**, **✖**.
2. Enter the 3-digit Unlock code.

**Note: Please contact your selling Audiovox dealer to check the initial Unlock code.**

3. Enter your PIN (up to 6 digits).
4. Press **▲** or **▼** to turn the PIN feature on or off.
5. Press **RIS**.
6. To exit the mode, press **CLR**.

## FUNCTION REVIEW

### To Review the Function Menus:

1. Press **FNC**, then **▲** or **▼**. “FNC Review” will be displayed.
2. Press **▲** or **▼** to scroll up or down the function menus.
3. Press **END** to exit the mode.

- Notes:**
- You can directly access to “FNC #1” by pressing **FNC**, **\***, **▲/▼**.
  - You can directly access to “FNC #1” by pressing **FNC**, **#**, **▲/▼**.

### To Directly Enter the Function Setting Mode:

1. Press **FNC**, then **▲** or **▼** to search for the desired function menu.
2. Press **FNC**. Then, you can enter the function setting mode.

The following table shows each function menu. In the actual display, “FNC 1 Scratch” and “FNC 1 Pad” are alternately displayed in case of FNC 1.

Display	Function
FNC 1 Scratch Pad	Scratch pad memory
FNC 3 DTMF Tone	DTMF tone mute (during a call)
FNC 5 Lock	Locking your phone electronically
FNC 6 System Standard	Scan mode selection
FNC 8 Silent Alert	Silent alert selection
FNC 9 Auto Answer	Automatic answer selection
FNC 71 Message Mode	Message mode selection
FNC 72 Message Beep	Message beep selection
FNC #1 Beep Tone	Call time warning tone selection

<b>Display</b>	<b>Function</b>
FNC #4 1-Touch Emerg.	One touch emergency call selection
FNC #5 Call Restr.	Call restriction mode selection
FNC #6 Display RSSI	Current SID, RF Channel and RSSI level display
FNC #20 Call Counter	Temporarily accumulated call counter display
FNC #21 Outgo Call	Accumulated outgoing call counter display
FNC #22 Total Call	Accumulated call counter display
FNC #30 Call Timer	Elapsed timer display for current or last call
FNC #31 Outgo Time	Outgoing call timer display
FNC #32 Total Time	Cumulative call timer display
FNC #90 Voice Volume	Earpiece volume selection
FNC #91 Alert Volume	Alert volume selection
FNC #92 Tone Volume	Keypad tone volume selection
FNC #93 M-Beep Volume	Message Beep volume selection
FNC #1 Own Phone	Own telephone number display
FNC #2 Display ESN	Own ESN display (Electronic Serial Number)
FNC #3 Display SIDH	Own system ID display
FNC #8 Change DTMF	DTMF (keypad) tone duration selection
FNC #51 Change Unlock	Unlock code change
FNC #52 Change CR	Call restriction access code change

Display	Function
FNC #53 Change C-Count	Call counter access code change
FNC #54 Change C-Timer	Call timer access code change
FNC #* Change PIN	PIN entry mode
FNC ## Multi Reg.	Multiple city registration (phone number and SID entry)

## ENHANCED FEATURE OPERATION

The feature operation on the following pages pertains to “Enhanced Features” that may be offered by your cellular service provider. Before you can use these features, you must subscribe to them through your home cellular service provider.

**Please note:** *These optional network services may not be available in all areas.*

### Caller ID

When your phone receives a call, “CALL” blinks and the caller’s phone number is displayed. The caller’s phone number is also displayed in Call Waiting.

To answer the call, press any key except **(PWR)**, **(END)**, **(▲)**, and **(▼)** as usual.

If you do not answer the call, the number of unanswered call and the caller’s phone number will remain in the display.

### Call Back Number

- When Call Back Number is received in standby mode, “CALL BACK” will be displayed. Press **(RS)**, **(RS)**, and use **(▲)**/**(▼)** keys to view the Call Back Number.
- When Call Back Number is received during alert, “CALL” blinks and the Call Back Number is displayed.
- When Call Back Number is received during conversation, the Call Back Number is displayed.

### Voice Mail Notification

- When Voice Mail Message is received in standby mode,

“VOICE MAIL” will blink. Press (R/S), (R/S) and use (▲)/(▼) keys to display the number of received Voice Mail.

- When Voice Mail Message is received during alert or conversation, Voice Mail Number or number of received Voice Mail is displayed.

### Short Message Service

- When Short Message Service is received in standby mode, “SHORT MESSAGE” will be displayed. Press (M) or (R/S), (R/S) and use (▲)/(▼) keys to view the Short Message.
- When Short Message Service is received during alert or conversation, the Short Message is displayed.

### Digital Message Mode ON/OFF:

1. Press (FNC), (7PRS), (1), then enter the 3 digit Unlock code.
2. Press (M) or (▲), (R/S) or (▼), (R/S) to turn the mode on or off. “Message Mode ON” or “Message Mode OFF” will be displayed.
3. Press (CLR) to clear the display.

### Digital Message Beep ON/OFF:

Press (FNC), (7PRS), (2ABC). “Message Beep ON” or “Message Beep OFF” will be displayed. To toggle “ON” and “OFF”, press (FNC), (7PRS), (2ABC). To clear the display, press (CLR).

### Message Beep Alert Tone Level Control

While not in use, Message Beep Alert Tone can be adjusted as follows:

1. Press (FNC), (\*), (9WXYZ), (3DEF).
2. Press (▲) or (▼) according to your desired tone level.
3. Press (CLR) to clear the display.

### Memory Stack

Your phone has a 30 memory stack for data and messages and one independent memory stack for Voice Mail Notification. When there is an unreviewed message in standby mode, the MESSAGE indicator blinks.

Press (R/S) and hold (R/S) for 2 seconds to see the number of stored and unreviewed messages. Then press any key except (PWR), (END), (▲), and (▼) to see the stored messages.



## PROTECT YOUR WARRANTY

Read your Warranty carefully, with the special consideration to paragraph seven of the Limited Warranty for your unit.

“Warranty does not apply to... or to any product or part thereof which has suffered through alteration... mishandling, misuse, neglect, or accident”.

Many companies are making look-alike accessories and in some cases, promoting that their product is equal to or better than the Audiovox product. Be careful. Some of these products may not be compatible for use with your Audiovox product and may damage the unit or cause it to malfunction. If service is required on your unit, and it is determined that a non-Audiovox accessory has created the problem with your unit, the Warranty will not apply. In addition, if the unit has already suffered irreversible damage by reason of a non-compatible accessory, the Warranty will be voided. To protect your Warranty, use only compatible accessories which cannot damage or interfere with the functioning of your Audiovox product.



AUDIOVOX COMMUNICATIONS CORP.

555 Wireless Blvd. Hauppauge, New York 11788, 516-233-3300

16808 Marquardt Avenue, Cerritos, California 90701, 562-802-5100

Audiovox Canada

405 Britannia Rd. East, Ste 101, Mississauga, Ontario, Canada

L4Z3E6, 905-712-9299

Audiovox Pacific Pty Ltd

110 Rocky Point Road, Kogarah, NSW 2217, Australia, 02-9587-0011

Audiovox New Zealand Pty Ltd

Unit B, 6 Henderson Place, Auckland, 6496345720

<http://www.audiovox.com>

## 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)
Supply Voltage:	13.7 VDC ± 20% Negative Ground
RF Power Output:	3 W (MAX)
Dimensions:	
Transceiver:	Approx. 3.1" × 8.3" × 1.3" (80 × 210 × 31.5 mm)
Handset:	Approx. 2.2" × 7.6" × 6.5" (57 × 195 × 38 mm)
Weight:	
Transceiver:	Approx. 11b. 3.2 oz (594g)
Handset:	Approx. 5.2 oz (148g)

\* *Subject to change without notice.*



## TABLE OF KEY OPERATION

KEY OPERATION	Function
$\text{PWR}$	Holding $\text{PWR}$ turns your phone on and off.
Phone No.+ $\text{FNC}$ + $1$	Stores to Scratch Pad Memory.
$\text{FNC}$ + $3\text{DEF}$ (During conversation)	Turns the DTMF tone on and off.
$\text{FNC}$ + $5\text{JKL}$ +3 Digit Code	Locks your phone electronically.
$\text{FNC}$ + $6\text{MNO}$ + $\uparrow$	Displays current scan mode.
$\text{FNC}$ + $6\text{MNO}$ + $\uparrow$ + $\uparrow$ ... $\text{R/S}$	Selects Scan Mode.
$\text{FNC}$ + $7\text{PRS}$ + $1$ +3 Digit Code+ $\uparrow$ / $\downarrow$ + $\text{R/S}$	Turns the Message Mode on and off.
$\text{FNC}$ + $7\text{PRS}$ + $2\text{ABC}$	Turns the Message Beep on and off.
$\text{FNC}$ + $8\text{TUV}$	Turns the Silent Alert mode on and off.
$\text{FNC}$ + $9\text{WXYZ}$	Turns the Automatic Answer mode on and off.
$\text{FNC}$ + $\text{M/A}$	Enters the Alphanumeric entry mode.
$\text{FNC}$ + $*$ + $1$	Turns the Call Time Warning Tone on and off.
$\text{FNC}$ + $*$ + $2\text{ABC}$ + $0\text{OPER}$	Displays the temporarily accumulated number of calls.
$\text{FNC}$ + $*$ + $2\text{ABC}$ + $1$ +2 Digit Code	Displays the number of outgoing calls.
$\text{FNC}$ + $*$ + $2\text{ABC}$ + $2\text{ABC}$ +2 Digit Code	Displays the accumulated number of calls.
$\text{FNC}$ + $*$ + $3\text{DEF}$ + $0\text{OPER}$	Displays the time of current or last call.
$\text{FNC}$ + $*$ + $3\text{DEF}$ + $1$ +2 Digit Code	Displays the time of outgoing calls.
$\text{FNC}$ + $*$ + $3\text{DEF}$ + $2\text{ABC}$ +2 Digit Code	Displays the cumulative call time.
$\text{FNC}$ + $*$ + $4\text{GHI}$ +3 Digit Code+New Emergency No. + $\uparrow$ / $\downarrow$ + $\text{R/S}$	Changes Emergency Number and turns the One Touch Emergency call mode on and off.

KEY OPERATION	Function
$\text{FNC} + * + 5_{JKL}$ +3 Digit Code	Activates the Call Restriction mode.
$\text{FNC} + * + 6_{MNO}$	Displays the current SID, current Channel and the RSSI Level.
$\text{FNC} + * + 9_{WXYZ} + 0_{OPER}$ +▲/▼	Adjusts the earpiece volume level.
$\text{FNC} + * + 9_{WXYZ} + 1$ +▲/▼	Adjusts the alert sound output volume level.
$\text{FNC} + * + 9_{WXYZ} + 2_{ABC}$ +▲/▼	Adjusts the tone volume level.
$\text{FNC} + * + 9_{WXYZ} + 3_{DEF}$ +▲/▼	Adjusts the Message Beep volume level.
$\text{FNC} + \# + 1$	Displays own telephone number.
$\text{FNC} + \# + 2_{ABC}$	Displays the Electronic Serial Number (ESN).
$\text{FNC} + \# + 3_{DEF}$	Displays the Home System ID (SIDH).
$\text{FNC} + \# + 5_{JKL} + 1$	Changes the Unlock Code.
$\text{FNC} + \# + 5_{JKL} + 2_{ABC}$	Changes the Call Restriction Access Code.
$\text{FNC} + \# + 5_{JKL} + 3_{DEF}$	Changes the Call Counter Access Code.
$\text{FNC} + \# + 5_{JKL} + 4_{GHI}$	Changes the Air Timer Access Code.
$\text{FNC} + \# + 8_{TUV}$	Changes the Keypad (DTMF) Tone Duration
$\text{FNC} + \# + * + 3 \text{ Digit Code} + \text{PIN} + \text{▲/▼} + \text{R/S}$	Enters PIN and turns PIN feature on and off
$\text{CLR} + 5 \text{ Digit New SID} + 10 \text{ Digit Phone No.}$ + $\text{FNC} + \# + \#$ +3 Digit Code	Multiple City Registration (Changes the phone number and SIDH)
$\text{CLR}$	Clears the last digit. If held in erases the entire number from display.
$\text{CLR} + \text{END}$	Clears the entire number from display.

KEY OPERATION	Function
Phone No.+ $\text{FNC}$ + $\text{R/S}$ +Memory Location No.	Stores the telephone number in the memory.
Phone No.+ $\text{FNC}$ + $\text{M/A}$ +Name.+ $\text{FNC}$ + $\text{R/S}$ +Memory Location No.	Stores the telephone number and the alphanumeric information in the memory.
Phone No.+ $\text{FNC}$ + $\text{R/S}$ + $\text{R/S}$	Searches the vacant memory and stores the telephone number automatically.
Phone No.+ $\text{FNC}$ + $\text{M/A}$ +Name+ $\text{R/S}$ + $\text{R/S}$ + $\text{R/S}$	Searches the vacant memory and stores the telephone number and alphanumeric information automatically.
Phone No.+ $\text{FNC}$ + $\text{R/S}$ + $\text{▲}$ / $\text{▼}$	Searches the vacant memory address to store.
$\text{R/S}$ + $\#$ + $\text{OPER}$ / $\text{1}$ / $\text{2ABC}$	Displays the telephone number of three latest calls.
$\text{R/S}$ +Memory Location No.	Recalls the telephone number from the memory.
$\text{R/S}$ + $\text{✳}$ +Memory Location No.	Adds the DTMF tone to the recalled number.
$\text{R/S}$ + $\text{▲}$ / $\text{▼}$	Recalls the telephone number in address order.
$\text{FNC}$ + $\text{M/A}$ +Name + $\text{R/S}$ + $\text{▲}$ / $\text{▼}$	Searches the telephone number by alphanumeric characters.
$\text{M/A}$	In standby mode, holding $\text{M/A}$ initiates a call to the number stored in One Touch Memory or Link Dialing Memory. During conversation, except Link Dialing, pressing $\text{M/A}$ switches the Mute mode on and off. During conversation mode of Link Dialing, pressing $\text{M/A}$ activates Link Dialing in order. In alphanumeric entry mode, pressing $\text{M/A}$ toggles between phone number entry and name entry mode.
$\text{SEND}$	Receives the call when "CALL" flashes.
Phone No.+ $\text{SEND}$	Processes the call.
$\text{END}$	Terminates the call.

## 12 MONTH LIMITED WARRANTY

AUDIOVOX COMMUNICATIONS 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). Accessories, if supplied, except rechargeable battery packs, are similarly warranted for 12 months. Battery packs are warranted from the date of purchase for 90 days.

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 COMPANY'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, EX-PRESS 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.

IN U.S.A.: AUDIOVOX COMMUNICATIONS CORPORATION

555 Wireless Blvd., Hauppauge, New York 11788 (516) 233-3300

IN CANADA: AUDIOVOX CANADA, LTD.

405 Britannia Road East Suite 101  
Mississauga, Ontario L4Z 3E6  
(905) 712-9299 (800) 465-9672