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**General Mobile Radio Service (GMRS)
Model : GMRS122-2CH**

Owner's Manual



1-800-290-6650

Draft : 1-15-03(by TTI).

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CAUTIONS

NEVER ATTEMPT TO CHARGE ALKALINE OR DRY CELL BATTERIES, AS BATTERIES MAY BURST CAUSING PERSONAL INJURY AND DAMAGE TO THE PRODUCT. WHEN RECHARGING NICKEL METAL HYDRIDE (Ni-MH) BATTERIES WITH THE AUDIOVOX CHARGER, USE ONLY AUDIOVOX APPROVED RECHARGEABLE BATTERIES. USE OF THE AUDIOVOX CHARGER WITH OTHER BRANDS OF BATTERIES IS NOT RECOMMENDED, AS BATTERY CHARGING TIMES WILL VARY WITH DIFFERENT BRANDS. REFER TO THE MANUFACTURER'S INSTRUCTIONS FOR CHARGING OTHER BRANDS OF BATTERIES.

AVOID PLACING THE GMRS-3000PK RADIO TRANSCEIVER FOR PROLONGED PERIODS OF TIME IN DIRECT SUNLIGHT OR TEMPERATURES BELOW -4° F (-20° C) OR ABOVE 140 ° F (60° C).

KEEP THE ANTENNA AT 1 INCH (2.5 cm) AWAY FROM YOUR HEAD AND BODY. DO NOT USE YOUR GMRS122-2CH RADIO TRANSCEIVER WITH A DAMAGED ANTENNA.

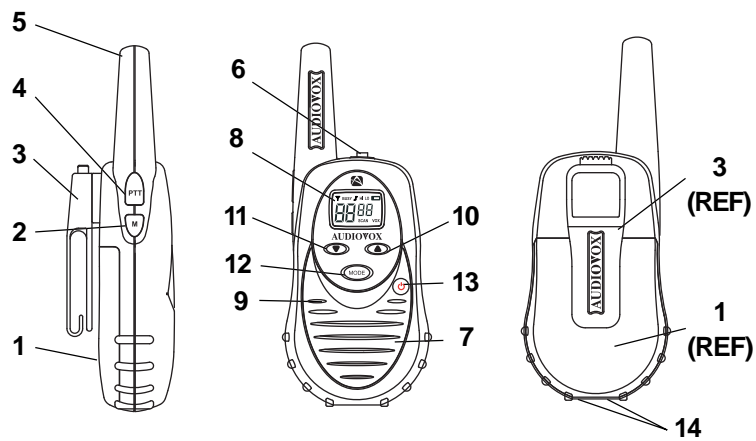
PLACE THE RUBBER COVER ON JACKS WHEN NOT IN USE.

GMRS LICENSE:

USE OF THIS RADIO WITHIN THE UNITED STATES REQUIRES AN FCC GMRS LICENSE. AN INDIVIDUAL 18 YEARS OF AGE OR OLDER, WHO IS NOT A REPRESENTATIVE OF A FOREIGN GOVERNMENT, IS ELIGIBLE TO APPLY FOR A GMRS SYSTEM LICENSE. YOU WILL NEED TWO FORMS FROM THE FCC; FCC FORM 159 AND FCC FORM 605 MAIN FORM AND SCHEDULE F. YOU CAN FIND THE FORMS ONLINE AT: [HTTP://WWW.FCC.GOV/FORMPAGE.HTML](http://www.fcc.gov/formpage.html), OR CALL 1-800-418-3676.

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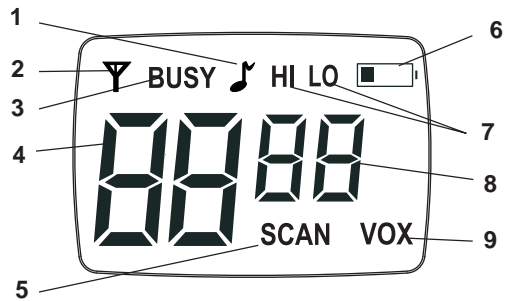
Model GMRS122-2CH (FCC License Required)



- | | |
|--|--------------------------------------|
| 1. Battery Cover | 10. Up Channel/Volume Button |
| 2. Monitor/Function Confirmation Button | 11. Down Channel/Volume Button |
| 3. Detachable Carry Clip | 12. MODE Button |
| 4. Push-To-Talk (PTT) and Function Confirmation Button | 13. Power (PWR) On/Off & SCAN Button |
| 5. Antenna | 14. Battery Charging Contacts |
| 6. External Speaker(SP.)/Microphone (MIC) Jacks | |
| 7. Built-in Speaker | |
| 8. Liquid Crystal Display (LCD) | |
| 9. Built-in Microphone | |

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Model GMRS 122-2CH DISPLAY



- 1. RogerBeep Tone On/Off Indicator:** This icon appears when the Roger Beep tone is on, and disappears when tone is not in use.
- 2. Transmit Indicator:** The icon also represents transmit signal power during transmission.
- 3. Monitor Indicator:** Icon appears when the Monitor (**M**) button is pressed and the channel monitor function is activated. Icon appears also when a signal is being received.
- 4. Large Segment Display:** Indicates the channel number in use.
- 5. Scan Indicator:** This function allows the user to scan a channel and/or a tone code every .5 second to search for a valid signal.
- 6. Battery Level Indicator:** Icon indicates when the battery is low level.
- 7. Hi/LO Indicators:** Appropriate icon appears when the transmit power is set to desired output power.
- 8. Small Segment Display:** Displays the CTCSS tone option in the channel from (00-38).
- 9. Voice Activated Transmission (VOX) Indicator:** This function allows hands free conversation. The icon appears when the VOX mode is activated.

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Equipment and Accessories Supplied

- | | | |
|----|-----------------------|-------------------|
| 1. | Radio (2) | GMRS122-2CH |
| 2. | Owner's Manual (1) | 128-xxxx |
| 3. | Batteries (8) | Rechargeable NiMH |
| 4. | Dual Desk-Top Charger | DTC122-2CH |
| 5. | AC Wall Adapter | UD-1201B |

Powering the transceiver:

Your GMRS122-2CH radio transceiver operates on four AAA batteries. Alkaline batteries will provide slightly better performance than rechargeable batteries. Only the supplied Audiovox-approved rechargeable batteries can be recharged in the radio transceiver using the supplied desk-top charger and associated wall adapter. This will ensure optimum performance for the GMRS122-2CH. Battery charging time is typically 10-12 hours. Use of the Audiovox charger with other brands of batteries is not recommended as battery charging times will vary. Refer to the manufacturer's instructions for charging other brands of batteries.

Batteries

There are three methods of powering the GMRS122-2CH:

1. Alkaline Batteries.

WARNING: Do not attempt to recharge Alkaline batteries.

2. Audiovox Rechargeable Ni-MH Batteries - (Rechargeable Ni-MH batteries, Wall Adapter and Charging Stand included).

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Use only Audiovox-approved rechargeable batteries and charger when charging batteries internal to the unit.

NOTE: To extend battery life, avoid overcharging the batteries.

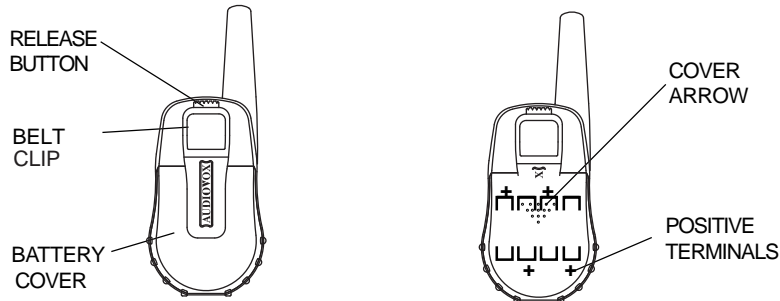
3. Various Brands of Rechargeable Batteries - Use of the Audiovox charger with other brands of rechargeable batteries is not recommended, as battery charging times will vary with different brands of batteries. Refer to the manufacturer's instructions for charging other brands of batteries.

Installing the batteries:

Battery installation is made more convenient when the carry clip is removed. To do this, release the spring clip securing the belt clip to radio and slide the belt clip upward and away from the radio body. Next, press down with the thumb at the embossed arrow, slide the battery cover down and lift off the battery cover. Insert four AAA batteries (alternate positive ends (+) toward the top of the transceiver, starting left-to-right).

CLIP

CLIP

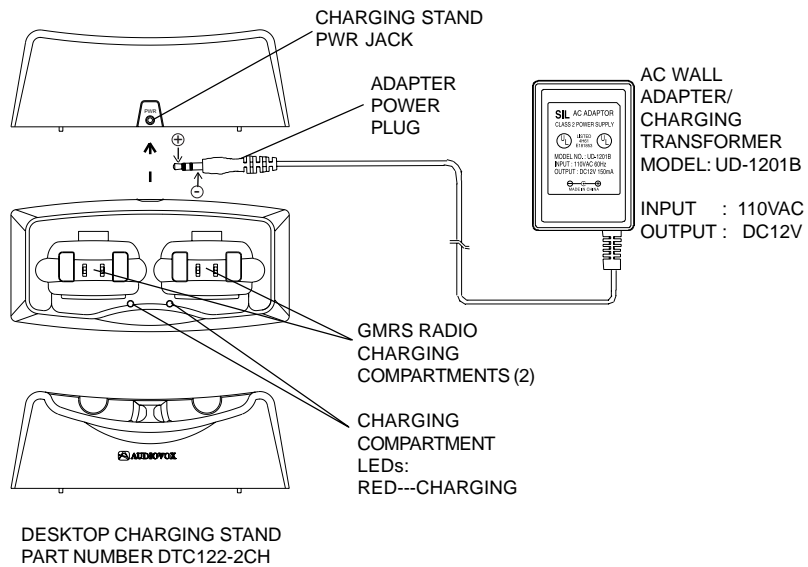


1. Using thumb, press down on battery cover at arrow and slide cover down to open.
2. Slide the cover down and then lift cover at bottom. Remove cover.
3. Insert four AAA batteries (positive (+) end toward the top beginning at left side and alternating positive terminals as shown).

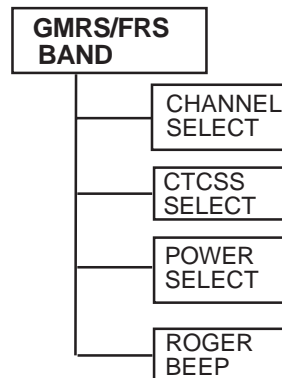
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The following guidelines will improve performance and provide longer operating times for the GMRS122-2CH:

1. Do not mix old and new batteries.
2. The use of alkaline-type batteries is recommended to provide the longest operating time.
3. Do not mix alkaline, standard (carbon-zinc) or rechargeable batteries.
4. If the unit is not to be used for an extended period of time, remove the batteries. Old or leaking batteries can cause damage to the unit and will void the warranty.



GMRS122-2CH OPERATIONAL MODES



NOTE:

To differentiate between operating modes, look for HI or LO indication below the battery power level indicator when in GMRS mode. Refer to the appropriate section of this manual for detailed operating instructions for each mode. When in standby mode, the transmit/receive indicator will flash once every 5 seconds as the unit is in the power-save mode.

Controls:


Power On/Off (13) Button

Press and hold the power on/off button (**PWR**) for at least 2 seconds. You will hear a confirming melody to indicate the unit is on. To turn the unit off, press and hold the button for at least 2 seconds.

Adjusting the Volume

With the unit powered on, press the Up Channel/Volume button (▲) to increase volume and the Down Channel/Volume button (▼) to decrease volume. The display will indicate the current volume level by the small number in the icon (**UL 0 - 7**).

Monitor/Display Backlight Button (2)

This button is used to check activity on the current frequency before transmitting. Check activity by pressing the Monitor (M) Button longer than 2 seconds; the **BUSY** icon will appear on the display and you will hear static if frequency is clear. ***Do not transmit if you hear conversation.*** Hold down the Monitor Button again longer than 2 seconds and the  icon will disappear from the display.

The monitor function will temporarily bypass the squelch setting and play all signals on a given channel. This feature is useful when communicating with other parties at extreme range.

By pressing the monitor button momentarily, the LCD backlight is turned on; the LCD backlight will turn off automatically in about 5 seconds, or when the monitor button is pressed momentarily once again.

Push To Talk (PTT) Button (4)

Pressing and holding this button will allow you to speak to any transceiver that is set to the same channel and privacy code setting as yours. Hold the transceiver approximately 1 to 2 inches from your face as you speak into the built in microphone (9). After you have finished speaking, release the PTT Button to allow reception of incoming signals. It is not possible to

transmit and receive at the same time. While the PTT Button is pressed and the TX indicator on the LCD will be display.

Releasing the button allows the unit to revert to standby mode. When receiving an incoming signal,

The PTT Button can also be used as a two-way call ringer. Pressing the button twice quickly will call another party on the same channel. The Transmit icon on the LCD will displayed for 3 seconds and then go out.

Up Channel/Volume Button (10)

In the standby mode, pressing this button will increment the listening volume. When in function edit mode this button will be used to adjust the unit's settings.

Down Channel/Volume Button (11)

In the standby mode, pressing this button will decrement the listening volume. When in function edit mode this button will be used to adjust the unit's settings.

MODE Button (12)

This button is used to select various feature settings in the GMRS and FRS.

External Speaker (SPK) / Microphone (MIC) Jacks (6)

This set of jacks accepts an Audiovox headset/microphone connector.

Scan Button (13)

Press this Button momentarily to enable or disable the scan mode.

Operating Modes and Features

GRMS/FRS Operation

- From GMRS/FRS standby mode, press and hold the (PWR) button for 2 seconds to turn on power.
- Press the MODE button so the Channel number flashes.
- Select the desired channel with the Up (10) and Down (11) Buttons. When receiving a call, the BUSY icon on the LCD appears to indicate incoming received signal
- Press and hold the PTT button (4) to transmit, then speak into the microphone clearly and slowly.
- Release PTT Button (4) to receive.
- Communication can only be accomplished when the channel and CTCSS tone frequency of at least two parties are the same.

Channel Selection

In order to communicate with other GMRS/FRS units, both transmitting and receiving party must be on the same frequency.

The GMRS122-2CH has 22 channels (frequencies) (1-22) indicated by the large digits on the LCD display panel. Channels 1 through 7 are the shared GMRS/FRS channels. Channels 8-14 are FRS only channels, while channels 15-22 are assigned GMRS only channels. If a FRS only channel (8-14) has been selected, the HI or LO icon will not be displayed on the LCD panel; otherwise, for channels 1-7 (GMRS/FRS) and 15-22 (GMRS only), the HI or LO icon will be displayed.

Communication with Audiovox GMRS/FRS and compatible units is possible on these 22 channels. Before transmitting on the selected channel, press the Monitor (M) Button (2) to check the activity on that channel. If there is activity on the selected channel, change to another channel that is clear.

To change the channel,

- From GMRS/FRS standby mode, press the MODE button (12) until the channel number flashes.
- Press the Up Button (10) briefly to move to the next higher main channel number.
- Press the Down Button (11) briefly to move to the next lower main channel number.

CTCSS Mode (Sub-Channel) Selection

Coded Tone Controlled Squelch System (CTCSS) with 38 Sub-Frequencies. This feature allows you to utilize the coded squelch tones (01-38) within a main channel. This enables you to communicate with another party on the same main channel using the same subcode. (This filters out unwanted transmissions without the same coded squelch tone). There are 38 CTCSS Sub-channels for each main channel. A different subcode may be selected for each of the 22 channels.

To change the CTCSS Sub-channel,

- From GMRS/FRS standby mode, press the MODE twice; a flashing **oF** or sub-channel number is displayed.
- Press the Up or Down button to select the desired sub-channel for use (1-38).
- Press the PTT or Power On/Off button to confirm selection.

The CTCSS mode can be turned off by selecting the **oF** icon as the setting.

NOTE: To communicate with other GMRS/FRS units, they must be switched to the same channel and CTCSS subcode. To communicate with other GMRS/FRS units that do not have subcodes, switch your unit to the same channel with the subcode set to **oF**.

The CTCSS subcodes do not prevent others from hearing your transmission. This will only allow you to ignore all traffic on a given channel not using the same subcode.

VOX Selection Mode

This option enables you to have hands-free conversation. Your voice or nearby sound is detected and the radio transmits without the need to press the PTT button.

To set radio for VOX operation,

- From GMRS/FRS standby mode, press and hold the MODE button until the **VOX** icon display on the LCD.

VOX can be turned off by pressing the MODE button for 3 seconds.

Channel Scan Operation

This feature allows you to monitor all channels automatically for valid signals. While scanning, you can transmit and receive. When a signal is received, the scan is interrupted and will return to scan mode 5 seconds after reception is terminated.

NOTE:

While the scan function is active, the MODE button will be inoperative. The scan mode will reduce the overall battery life due to the battery save function is overridden.

To enable the channel scan mode,

- From GMRS/FRS standby mode, momentarily press the power Button; **(SCAN)** will appear on the LCD display.
- The radio will display each channel (1-22) in order as the scan mode operates to find an active main channel.
- When unit doesn't find any signals and you want to transmit, press the PTT switch to return to home channel operation. The transceiver will automatically resume scanning approximately 5 seconds after the communication is completed.
- If there is no activity and you want to leave the scan mode, press the power button momentarily and the unit will return to normal operation; **(SCAN)** icon will disappear from the LCD display.

Key Tone

This feature allows the transceiver to sound a confirmation tone whenever the following keys are pressed: Monitor (M) Button, Up/Down Button, MODE Button, SCAN Button. The key tone is always on, not available to OFF.

Transmit Power Selection Mode

This feature permits selection of the transmitting power level to high or low. Using low power the unit will have a lower transmit range but battery life will be increased.

To access the transmitter power selection function:



- From GMRS standby mode, press the Function Button until the **Po** icon appears with a flashing **HI** or **Lo** indication on the display.
- Press the Up or Down button to toggle between the High and Low selections.
- Press the PTT or Power On/Off button to confirm selection.

The display will indicate the current setting in standby mode.


Roger Beep Tone

The Roger Beep is a tone which is automatically transmitted whenever the PTT button is released. This tone alerts the receiving party that the transmission has been terminated intentionally.

To enable and disable the Roger Beep tone:

- From GMRS/FRS standby mode, press the Function Button until **rb** appears on the display with the flashing Roger Beep icon () and **On** or **oF**.
- Press the Up or Down Button to select the tone on or off as desired.
- When enabled, the tone icon () appears steady on the display.
- Press the PTT or Power On/Off button to confirm selection.

Battery Alert

When the battery icon () blinks on the LCD panel, recharge unit or install fresh batteries.

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NOTES FOR GOOD COMMUNICATION

1. The GMRS122-2CH 22 channels are shared on a 'take turns' basis. This means other groups may be talking on any of the channels. A common code of ethics/courtesy is to switch to another vacant channel and not to attempt to talk over someone who is already using the channel you first selected.
2. The GMRS122-2CH has been designed to maximize performance and improve transmission range in the field. To avoid interference, it is recommended that you do not use the units closer than 5 feet apart.
3. For best transmission results, always keep your mouth about 2-3 inches from the microphone (9) and speak slowly in a normal voice.
4. To increase battery life, avoid features such as Scan, Dual Watch. These features will reduce operating time considerably.

Warning

- Do not operate the transceiver unless you are licensed to do so.
- Remove the batteries from the transceiver if it is not expected to be used for long periods. This will eliminate the possibility of chemicals leaking from the batteries and corroding the transceiver.
- Avoid exposing the transceiver to water or extremes of temperature.
- Do not use this device in or near a mining facility, which uses remotely triggered explosives or in areas labeled "Blasting Area". Premature or accidental detonation may result.
- Do not attempt to modify or in any way increase the output of this transceiver. Its output is designed to meet the legal limits set by the FCC.
- Do not use this device or change its batteries in potentially explosive atmospheres as sparks in such areas could result in an explosion.
- Turn your transceiver off wherever posted notices restrict the use of radios or cellular telephones. Facilities such as hospitals may use equipment that is sensitive to RF energy.

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- Turn your transceiver off on board aircraft when requested to do so.
- Do not place your radio in front of a vehicle's air-bag. If the air-bag deploys, it could propel the transceiver like a projectile causing bodily injury.

Troubleshooting

Problem	Possible cause	Correction
No transmission while pressing the PTT Button	Weak batteries	Charge or replace batteries
	Incorrect battery polarity	Install the batteries following the directions in paragraph Installing the Batteries.
Weak or no signal received	Weak batteries	Charge or replace batteries
	Channel and privacy code not set the same as target transceiver	Adjust the transceiver's settings to match those settings of the target transceiver
	Volume level too low PTT Button inadvertently depressed	Increase volume level Release PTT Button
	Excessive radio interference on a particular channel Obstruction of radio signal	Change to a different channel Avoid operating in or near large buildings or vehicles
Unit beeps, but will not function when turned on	Batteries extremely discharged	Charge or replace batteries
Reception of unwanted signals	CTCSS privacy mode not on	Turn on the CTCSS privacy mode and set code number to match the setting of the target transceiver.
	Interference from electronic devices such as computers or TVs	Turn the devices off or move farther away from them.

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Technical Specifications;

General

Frequency Range:	
Channels 1 through 7 are shared with FRS radios.	Refer to frequency chart on next page.
Channels 8 through 14 are FRS only.	Refer to frequency chart on next page.
Channels 15 through 22 are GMRS only.	Refer to frequency chart on next page.
Channel Spacing	12.5kHz
Privacy Codes	38 for each main channel
Dimensions (W x H x D) (Without Antenna)	1.89 W x 3.6 H x 1.12 D (48.0 mm x 93 mm x 28.6 mm)

Power Supply

Power Source	Alkaline Batteries, AAA (4), 6 VDC Ni-MH rechargeable, AAA (4), 4.8 VDC, 650 mAh
Operating Time (Transmit: Receive: Standby) (5: 5: 90 ratio) (Based on alkaline batteries)	30 hours Low Power 14 hours High Power

Receiver

Useable Sensitivity	>-119 dBm
Maximum Audio Output Power	> 0.3 Watt maximum (8 Ohm)
Modulation Distortion	< 5% (1 kHz 70%)

Transmitter

RF Output Power	1.8 Watts maximum (high power) 0.5 Watt maximum (low power)
Maximum Deviation	+/- 2.5 kHz
Modulation Distortion	< 5% (1 kHz 70%)

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This transceiver complies with FCC regulations for use in the United States of America. Use in other countries may be prohibited or restricted by local regulation. Please check with the local regulating agency before using this device outside the United States of America.

Main Channel Frequencies :

CHANNEL/TYPE	FREQ(MHz)/PWR	CHANNEL/TYPE	FREQ(MHz)/PWR
1 GMRS/FRS	462.5625 / 2W-0.5W	12 FRS	467.6625 / 0.5W
2 GMRS/FRS	462.5875 / 2W-0.5W	13 FRS	467.6875 / 0.5W
3 GMRS/FRS	462.6125 / 2W-0.5W	14 FRS	467.7125 / 0.5W
4 GMRS/FRS	462.6375 / 2W-0.5W	15 GMRS	462.5500 / 2W-0.5W
5 GMRS/FRS	462.6625 / 2W-0.5W	16 GMRS	462.5750 / 2W-0.5W
6 GMRS/FRS	462.6875 / 2W-0.5W	17 GMRS	462.6000 / 2W-0.5W
7 GMRS/FRS	462.7125 / 2W-0.5W	18 GMRS	462.6250 / 2W-0.5W
8 FRS	467.5625 / 0.5W	19 GMRS	462.6500 / 2W-0.5W
9 FRS	467.5875 / 0.5W	20 GMRS	462.6750 / 2W-0.5W
10 FRS	467.6125 / 0.5W	21 GMRS	462.7000 / 2W-0.5W
11 FRS	467.6375 / 0.5W	22 GMRS	462.7250 / 2W-0.5W

NOTE : Channels 1 through 7 are shared with FRS radios.

Channels 8 through 14 are FRS only.

Channels 15 through 22 are GMRS only.

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**Continuous Tone Coded Squelch System Tone
Frequencies (in Hz)**

CTCSS	Freq. Hz	CTCSS	Freq. Hz
1	67.0	20	131.8
2	71.9	21	136.5
3	74.4	22	141.3
4	77.0	23	146.2
5	79.7	24	151.4
6	82.5	25	156.7
7	85.4	26	162.2
8	88.5	27	167.9
9	91.5	28	173.8
10	94.8	29	179.9
11	97.4	30	186.2
12	100.0	31	192.8
13	103.5	32	203.5
14	107.2	33	210.7
15	110.9	34	218.1
16	114.8	35	225.7
17	118.8	36	233.6
18	123.0	37	241.8
19	127.3	38	250.3

* oF = No Tone

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90 DAY LIMITED WARRANTY

Applies to Audiovox Family Radio and General Mobile Service Products.

AUDIOVOX CORPORATION (the Company) warrants to the original retail purchaser of this product that should this product or any part thereof, under normal use and conditions, be proven defective in material or workmanship within 90 days from the date of original purchase, such defect(s) will be repaired or replaced with new or reconditioned product (at the Company's option) without charge for parts and repair labor.

To obtain repair or replacement within the terms of this Warranty, the product is to be delivered with proof of warranty coverage (e.g. dated bill of sale), specification of defect(s), transportation prepaid, to the warranty center at the address shown below.

The Company disclaims liability for communications range of this product.

This Warranty does not apply to any product or part thereof which, in the opinion of the Company, has suffered or been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number/bar code label(s). 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.

This Warranty is in lieu of all other express warranties or liabilities. 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 30 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 limitations 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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