

AUDIOVOX

GMRS4WM Owner's/Installation Manual



**GMRS (General Mobile Radio Service)
Wall Mount Charger
Patent Pending**



AUDIOVOX SPECIALIZED APPLICATIONS, L.L.C.

www.asaelectronics.com

WARNING

Replacement or substitution of transistors, diodes, or other parts of a unique nature, with parts other than those recommended by manufacturer, may cause violation of the technical regulations of Parts 95 of the FCC Rules, or violation of Part 2 of the rules.

Do not use this device in or near a mining facility which uses remotely triggered explosives or in an area labeled "Blasting Area". Premature or accidental detonation may result.

Do not use this device or change batteries in potentially explosive atmospheres, as sparks in such areas could result in an explosion.

Turn your transceiver off on board aircraft when requested to do so.

This transceiver complies with FCC regulations for use in the United States. Use in other countries may be prohibited or restricted by local regulations.

Please check with the local agency before using this device outside of the U.S.A.

The GMRS wall mount charger is custom designed for mobile applications. It is intended to store and charge up to four GMRS100 radios.

Before operating your GMRS4WM family radios and charger, please read this manual carefully.

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Your GMRS4WM is a 12VDC wall mount charger that includes 4 GMRS (General Mobile Radio System) radios (P/N GMRS100). The charger keeps the radio batteries fully charged and stored when not in use. These radios are skillfully constructed to give reliable communication in many applications. Ideal applications include but are not limited to home, car, boat or recreation vehicle (RV). Ideal for use on hunting or camping trips, skiing trips, trips to the mall or at your

place of business for security patrols or warehouse communication.

FEATURES

- Includes Charger, 4 GMRS radios and rechargeable batteries
- 12VDC power Input
- Wall-mount design with integrated 4-screw flange mounting system.
- Latching spring-loaded door
- LED Charge Status Indicators

PERFORMANCE

Your transceiver will achieve maximum operating range when communicating with another transceiver in a flat open area with no trees or buildings obstructing it's signal. Range can be up to two miles under such conditions. Obstacles, such as buildings, trees, or hills may tend to reduce the transceiver's range.

INSTALLATION

Locate an area in the vehicle's wall which will permit mounting of the GMRS4WM. The area inside the wall should allow a mounting depth of 4 inches minimum and must be free from obstructions such as wall braces, wires, or other impediments.

Using the template provided, carefully mark the cutout and mounting holes. Carefully saw and remove the wall material from inside the hole.

Locate a switched 12V line and ground line.

Connect the Red Wire to the vehicle's switched 12V line.

Locate either a ground line or a grounded metal portion of the vehicle. Attach the Black Wire from the GMRS4WM to the ground.

Carefully fold the wires into the wall section, making sure they are not pinched.

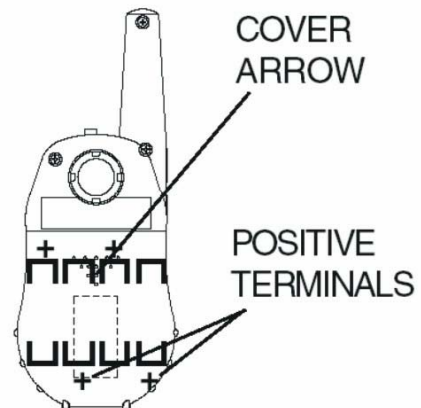
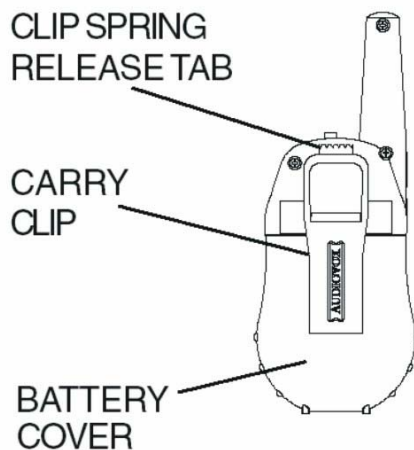
Insert the GMRS4WM into the opening and attach it with the screws provided, making sure that the screws do not pierce wire bundles or other equipment in the wall.

BATTERY INSTALLATION

Each radio comes with four batteries.

Remove cover by releasing the clasp at the bottom of the compartment. Observe polarity symbols inside the battery tray when installing new batteries.

CAUTION: THE BATTERIES WHICH ARE SUPPLIED WITH THE HANDSETS ARE SPECIALLY SELECTED TO OPERATE WITH THE GMRS4WM CHARGER. REPLACE ONLY WITH EXACT REPLACEMENT BATTERIES TO GUARANTEE PROPER CHARGING OPERATION AND BEST PERFORMANCE FROM YOUR HANDSETS. USE OF OTHER BATTERY TYPES MAY DAMAGE THE UNIT.



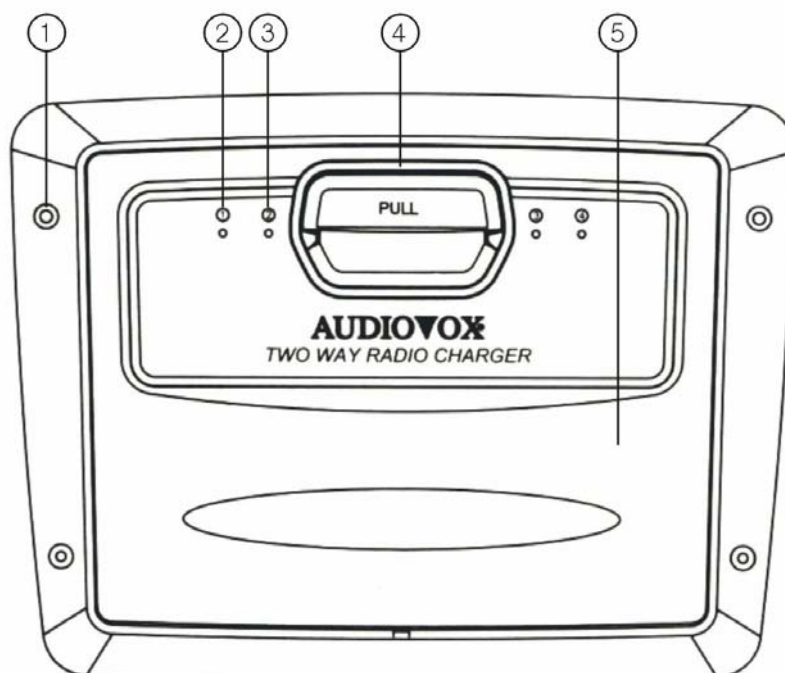
BATTERY SAVER MODE

Your GMRS4WM has a unique circuit designed to dramatically extend the life of your batteries. Four seconds after the transmit button has been pressed, the GMRS4WM will switch to battery saver mode, and the LCD display will turn off. The Transceiver will remain ready to receive any incoming transmissions while in the battery saver mode. Pressing any of the buttons will illuminate the display and exit the battery saver mode.

USE

- 1) Install the transceivers with the PTT (Push To Talk) switch facing out. There are four docking bays in the GMRS4WM charger to accommodate up to four GMRS100 Handsets.
- 2) Close and latch the GMRS4WM door. The latch can be engaged by gently pressing against the center of the door.
- 3) There are four indicator lights on the GMRS4WM door. Initially they will "glow" red when power is applied (ignition switch in "On" or "ACC" position). After the GMRS100 (Transceiver Handset) batteries are fully charged, the indicators will turn green, indicating the transceivers are ready for use. If the indicator light blinks red, try removing the handset and re-inserting it into the charger unit.
- 4) The transceivers may be stored safely in the GMRS4WM charging unit. When the batteries are fully charged, each transceiver will individually switch to "trickle" mode.

FUNCTION AND LOCATION OF CHARGER CONTROLS



- 1) Mounting screw locations – 4 places
Use the mounting screws provided to mount the charger unit to the wall. Use the provided template.
- 2) Handset Compartment Indicators
Indicates which handsets (transceivers) are in the unit.
- 3) LED Handset Recharge Indicators
Red indicates a handset is being charged. Green indicates a handset is fully charged.
- 4) Door Latch
Door latch allows for easy open access to protect and secure the handsets as they recharge.
- 5) Door
Door is spring loaded with viscous dampers for smooth operation.

HOW TO OPERATE YOUR RADIO

For more detailed operating instructions for the handsets, please see the GMRS100 operation manual.

TO RECEIVE:

- 1) Turn the power "On".
- 2) If the "Battery Low" indicator is on, charge the batteries.
- 3) Set the channel selector to the desired channel.
- 4) Adjust the volume control to a desirable listening level by pressing and holding the monitor button while turning the volume control knob.

TO TRANSMIT:

- 1) Turn the power to "On".
- 2) If the "Battery Low" indicator is on, charge the batteries.

3) Set the channel selector to the desired channel.

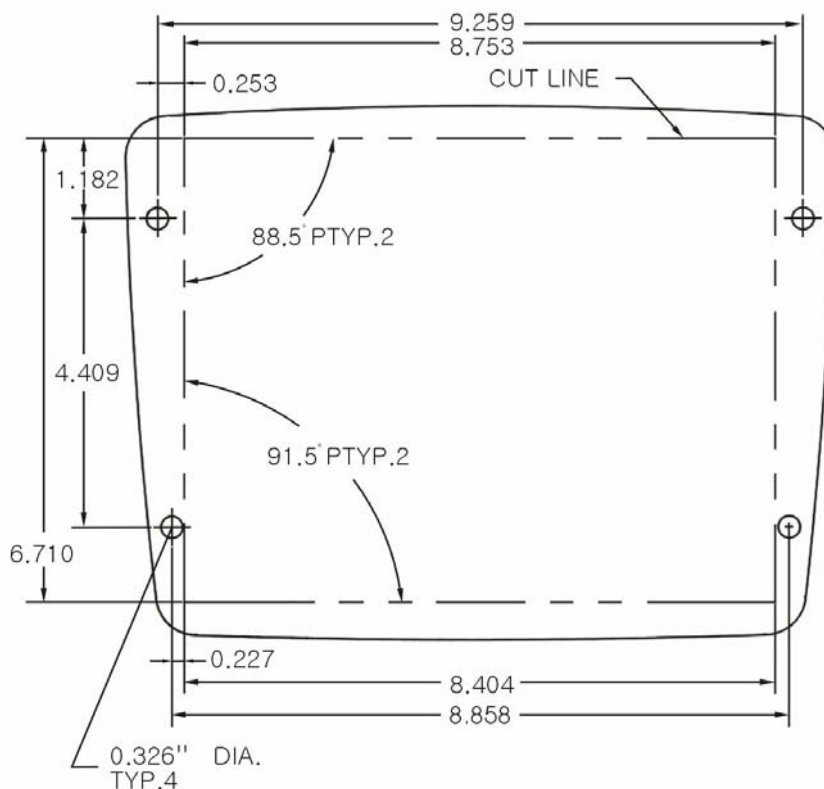
4) To transmit, press the Push-To-Talk button.

Speak slowly and clearly in a normal voice, approximately 2-3 inches from the microphone. A built-in modulation control circuit will automatically adjust the microphone input level. There's no need to speak loudly.

5) To receive, release the Push-To-Talk button.

CUTOUT INSTALLATION DIMENSIONS

MINIMUM CUTOUT DEPTH 4.00"



INDICATOR LIGHT STATUS

Each charging station in the GMRS4WM has an indicator light in the charger door. When a handset is present, the status is indicated in the following manner:

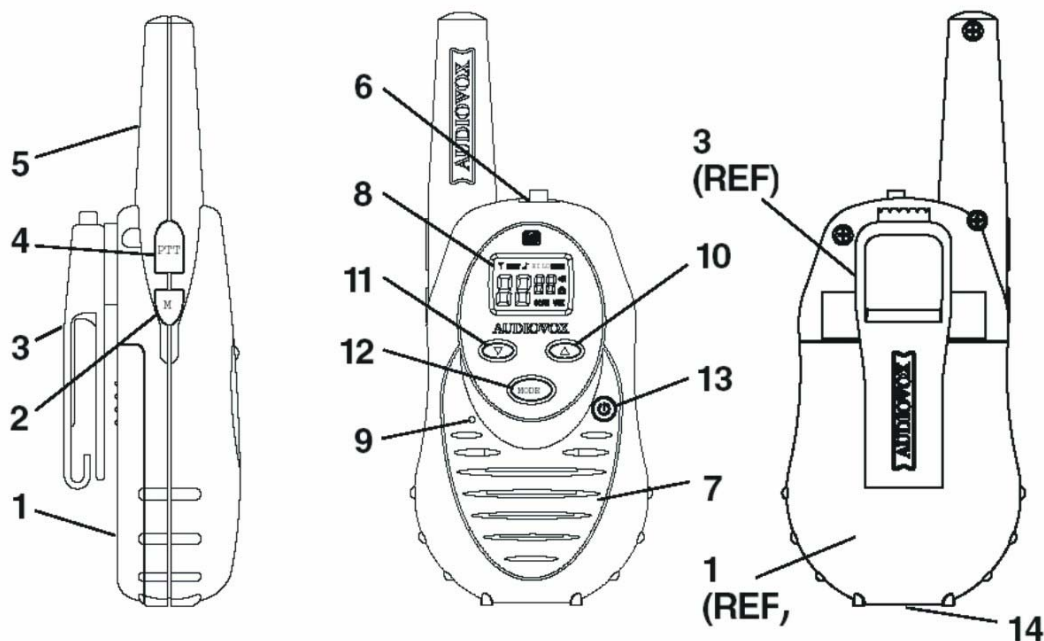
- The light glows RED when the handset is being charged.
- The light glows GREEN when the batteries are fully charged and the charger is in trickle mode.
- The light flashes RED if there is an error, such as the battery cell is bad or the handset is not making proper contact in the charger station. Remove and re-insert the handset. If the condition persists, replace the batteries with four fresh cells.

CARE AND MAINTENANCE

Remove the batteries from the transceivers if they are not going to be used for long periods. This will eliminate the possibility of chemicals leaking from the batteries and corroding the transceivers.

The GMRS100Y Transceivers should not be immersed in water.

FUNCTION AND LOCATION OF HANDSET(GMRS4WM) CONTROLS



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

Controls:

Power On-Off/SCAN Button (13)

Press and hold the PWR on/off button 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 (11, 10)

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 (VL) followed by the number (0-7). As volume is increased upward, the unit will beep at each step, and vice-versa. When the minimum and maximum volume settings are reached, a unique tone will sound.

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 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, unless 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. Whenever the button is pressed, the transmit signal icon (Y) will appear in the upper left corner of the display. Releasing the button allows the unit to revert to standby mode. When receiving an incoming signal, the icon will appear. 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 (Y) will be displayed for 3 seconds and then disappear.

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 modes.

External Speaker (SPK)/ Microphone (MIC)/CHG Jack (6)

This jack accepts both the optional Audiovox headset/microphone connector. For additional equipment and accessories for the GMRS100, visit the Audiovox web site at www.audiovox.com <http://www.audiovox.com/>

Scan Button (13)

With the unit in standby mode, press the Power On/Off Button momentarily to enable or disable the scan function; **SCAN** will appear on the display.

SPECIFICATIONS

GMRS100

General

Frequency Range : Channels 1 through 7 are shared with FRS radios.
Channels 8 through 14 are FRS only.
Channels 15 through 22 are GMRS only.

Channel Spacing : 12.5kHz

Privacy Codes : 38 for each main channel

Dimensions (W x H x D) : 2.25" W x 3.68" H x 1.125" D
(Without Antenna) (56.0 mm x 93.7 mm x 28.5 mm)

Power Supply

Power Source : Ni-MH rechargeable, AAA (4), 4.8 VDC, 800 mAh

Operating Time : 18 hours Low Power

(Transmit: Receive: Standby) : 11 hours High Power
(5: 5: 90 ratio)

Note: Replace the batteries only with exact replacements. Other batteries will not operate properly with the GMRS4WM charger.

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%)

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

NOTE: Channels 1 through 7 are shared with FRS radios.
 Channels 8 through 14 are FRS only.
 Channels 15 through 22 are GMRS only.

**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



AUDIOVOX SPECIALIZED APPLICATIONS, LLC

90 DAY/12 MONTH LIMITED WARRANTY

AUDIOVOX SPECIALIZED APPLICATION, LLC. (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 day from the date of original purchase, such defect(s) will be repaired or replaced (at the Company's option) without charge for parts and repair labor. After the initial 90 days period and for a period of 12 months from the date of original purchase, the Company will supply at no charge a replacement for any defective part(s) but will charge for the labor to repair the product.

To obtain repair or replacement within the terms of this Warranty, ASA must be called and a Return Authorization will be given to reference the product when returned. The product is to be delivered with proof of warranty coverage (e.g. Dated bill of sale), specification of defect(s), transportation prepaid, and with the Return Authorization Number clearly written on the outside of the package. The product must be returned to ASA for repair unless specified otherwise by ASA.

This Warranty does not cover the elimination of externally generated static or noise, to the correction of antenna problems, to costs incurred for removal or reinstallation of the product, or to damage to any tapes, speakers, accessories, or electrical Systems.

This Warranty does not apply to any product or part thereof which in the opinion of the Company has been damaged through alteration, improper installation, mishandling, misuse, neglect, or accident. 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 PURCHASE 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 WARRANTY. ANY ACTION OR ANY BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 30 DAYS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR 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 connection with the sale of this product. Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages 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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For replacement parts or to see a list of equipment specifically designed for the mobile environment, please visit us at www.asaelectronics.com."

