

WARRANTY

Midland will repair or replace, at its option without charge, any Midland FRS/GMRS product that is found to have a defect in material or workmanship within One Year following the initial purchase date. This warranty does not apply to water damage, battery leak damage or abuse.

This warranty does not include any carrying cases, earphones, or antennas, which may be a part of or accessory to the product, or the cost of labor for removal or re-installation of the product in a vehicle.

For service under this warranty may be obtained by returning the warranted product, with proof of purchase date, to:

Midland Corporation
Customer Service Department

Midland, Missouri 64116.

Specific legal rights, and you may also have other rights, which vary, from state to state.

This warranty applies only to merchandise purchased in the United States of America or any of its possessions, and not to merchandise purchased elsewhere, or from a U.S. Military exchange.

Midland
USA

Printed in Thailand

MIDLAND



User's Guide Model M-222P

General Mobile Radio
Featuring:

- 22 Channels
- 38 CTCSS codes
- VOX

Frequency Chart

Channel Frequency (MHz)	Channel Number	Channel Frequency (MHz)
462.5625	12	467.6625
462.5875	13	467.6875
462.6125	14	467.7125
462.6375	15	462.5500
462.6625	16	462.5750
462.6875	17	462.6000
462.7125	18	462.6250
467.5625	19	462.6500
467.5875	20	462.6750
467.6125	21	462.7000
467.6375	22	462.7250

Chart

Code	Freq (Hz)	Code	Freq (Hz)	Code	Freq (Hz)	Code	Freq (Hz)
9	91.5	17	118.8	25	156.7	33	210.7
10	94.8	18	123.0	26	162.2	34	218.1
11	97.4	19	127.3	27	167.9	36	225.7
12	100.0	20	131.8	28	173.8	36	233.6
13	103.5	21	136.5	29	179.9	37	241.8
14	107.2	22	141.3	30	186.2	38	250.3
15	110.9	23	146.2	31	192.8		
16	114.8	24	151.4	32	203.5		

Introduction

Your M-222P represents the state-of-the art in high-tech engineering for General Mobile Radio Service operation, this compact package offers excellent performance. It is a quality piece of electronic equipment, skillfully constructed with the finest components. The circuitry is all solid-state and mounted on rugged printed circuit boards. Your M-222P is designed for many years of reliable, trouble-free performance.

FCC Licensing Information

Your M-222P operates on General Mobile Radio Service (GMRS) frequencies. It is subject to the Rules and Regulations of the Federal Communications Commission (FCC). The FCC requires that all operators using General Mobile Radio Service (GMRS) frequencies obtain a radio license before operating the equipment for business, personal or recreational use. A GMRS license for an individual may be shared by immediate family members. To obtain application forms, call the FCC forms hotline at 1-800-418-3676 or visit <http://www.fcc.gov>. Please request forms **605** and **159** which include the necessary forms and instructions.

For questions concerning licensing, please contact the FCC at 1-800-418-3676 (1-888-225-5322), or go to <http://www.fcc.gov>.

re



lcohol or
otions to
radio.



Do not immerse the
radio in water.



Do not use the radio
until completely dry.



ft damp
the radio.



Do dry the radio with a
dry lint free cloth should
it get wet.



Do turn off the radio
and remove the
batteries when storing.

LCD Display



Channel indicator



Battery level ind



CTCSS Channel indicator



Roger Beep act

P.HIGH

Power high



Key Tone active

P.LOW

Power Low

VOX

Vox active indi



Key pad lock indicator

CALL

Call indicator

TOT

Time Out Timer indicator

To avoid accidentally changing radio operation, press  for 3 seconds. A lock icon will appear. When the lock icon is on the menu functions buttons are disabled. When locked, you will be able to turn the radio on, increase or decrease volume, monitor, transmit and send a call tone, press  for 3 seconds.

The M-222P has 10 different call tones available. To select the call

tone, repeatedly press  until **CALL** appears. The current call tone setting will begin to flash.

Press  or  to change the call tone. The new call tone will be heard from the speaker.

Press  or the PTT button to save the new call tone and exit the

call tone menu. Setting the call tone to 0 disables the call tone function.

Roger Beep: Whenever you release the PTT button, a "Roger Beep" tone is sounded to let your friends know you are finished talking. To enable the Roger Beep, turn the radio off. Press and hold  as you turn your radio on. The lock icon will appear in the upper right position of the display. Repeat the process to turn off the Roger Beep.

Operation

Power On/Off: Turn the knob on the top of the radio clockwise to turn the radio on. Turn the knob counterclockwise to turn the radio off.

Volume: Rotate the knob clockwise to increase the volume and counterclockwise to decrease the volume.

Talking and Listening: To communicate, all radios in your group must be on the same channel and CTCSS code.

- For maximum clarity, hold radio 2 to 3 inches from mouth.
- Press and hold PTT button and speak in a normal voice into the microphone. The LED indicator light glows continuously while transmitting.
- To receive messages, release the PTT button.

Disabling Button Beeps: A feedback beep is normally sounded when a front panel button on the radio is pressed. To turn this feature on or off, turn the radio off and hold the  button 3 seconds while turning the radio on. The lock icon will be on when beeps are enabled.

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	Back Cover

Compliance with Part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.

In compliance with the FCC's RF exposure guidelines, this device must maintain a separation distance of at least 15 cm (6 inches) from your body. To transmit, hold the radio with the antenna pointed up and away from your face, with the radio at least two inches (5 cm) from your face. Speak in a normal voice into the microphone.

Technical Specifications

General

Frequency Range	462.5625 - 462.5675 MHz
Channels	1
CTCSS Codes	100.0 Hz
Antenna Impedance	50 Ohms
Speaker Impedance	8 Ohms
Power Supply	3 AA
Modulation Type	FM
Intermediate frequencies	1 st IF = 21.7 MHz

Receiver

Sensitivity (for 12 dB Sinad)	0.5 uV
Audio out put power (@ 10%THD)	100 mW
Audio distortion (@ 500 mVrms)	0.5%
Signal/Noise ratio	12 dB
Image Rejection	60 dB
Adjacent channel selectivity	60 dB
Current drain (standby)	10 mA

Transmitter

Modulation	FM 1.0
Signal/Noise ratio	12 dB
Current drain (max)	100 mA

Buttons & Indicators



External Speaker/Microphone Jack: Your M-222P can be used with optional external speaker/microphone or headset, freeing your hands for other tasks. To use an optional speaker/microphone or headset:

- Open the SPK/MIC cover on right side of the radio.
- Insert the plug(s) into the SPK/MIC jacks.

Intercom: Your M-222P can be used with optional accessories to operate as an intercom system.

- Open the INT cover on top of the radio.
- Insert the appropriate plug into the INT jack.

Belt clip: Your M-222P comes with a belt clip. To install the belt clip:

- Slide the clip down into the slots on the back of the radio until the latching mechanism clicks.

To remove the belt clip:

- Pull outward on the latching tab while gently sliding the clip off the top of the radio.

Batteries

The radio operates with 3 AA Alkaline batteries. The belt clip should be removed before battery installation or removal. To install or remove batteries:

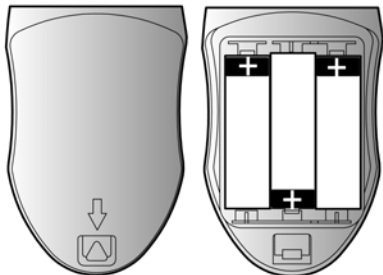
1. With the radio facing you, gently press the triangular battery latch on the top of the radio.

2. Slide the bottom edge of the battery cover and lift the cover off.

3. Insert the batteries observing the polarity as shown.

4. Push the two alignment tabs on the top edge of the cover into their slots on the bottom of the cover to secure.

5. Batteries are not included.



VOX: VOX (voice operated transmit) operation allows you to transmit using the PTT button when using a headset. To enable VOX operation:

- Open the SPK/MIC cover on right side of the radio.
- Insert the headset plug(s) into the SPK/MIC jacks.
- Set the VOX switch on headset to VOX position.
- Turn on the radio. The **VOX** icon will appear.

Note: The VOX level must be set properly for correct VOX operation.

VOX Level setup: Your M-222P has three selectable VOX levels. The level should be adjusted so that your voice causes the radio to transmit and environmental noise does not. To set the VOX level:

- With the radio on, repeatedly press the **VOX** button until **VOX** appears on the display. The VOX setting will begin to flash.
- Press the **DOWN** or **UP** arrow button to change the VOX level.
- Press the **MENU** or the PTT button to save the new call tone and return to the menu.

Note: Selecting level 0 will disable VOX operation without regard to the VOX switch setting on the headset.

Channel Selection: Your M-222P has 22 channels available. To change the channel, repeatedly press  until the current channel number flashes. Press  or  buttons to change the channel. Press  or the PTT button to save the new channel and exit the menu.



CTCSS Selection: Your M-222P has 38 CTCSS codes available. The selected code may be different for each channel. To select a CTCSS code for the current channel, repeatedly press  until the current CTCSS code number flashes.

Press  or  buttons to change the CTCSS code number. Press  or the PTT button to save the new CTCSS code and exit the menu.

Setting a CTCSS code of 0 will disable the CTCSS feature. To communicate between two M-222P radios, both the channel and

CTCSS code selections must be the same. To communicate with other channels and brands of radios the actual radio frequency and CTCSS frequency must be matched. The frequency charts at the back of this book are included for this selection. In general, the first fourteen channel selections may be used to communicate with most FRS radios.

Monitor button: Pressing and holding the  button lets you hear the current channel so you can adjust the volume level of the radio level when not receiving. The  should be used to check activity on current channel before transmitting.

Time out Timer: The Time-out Timer feature helps extend battery life by preventing accidental continuous transmission. The radio will emit a beep tone if the PTT button is pressed continuously for 60 seconds and will stop transmitting.

Power Selection: Your M-222P has two transmit power levels. To select a power level on channels 1-7 and 15-22:

- Press  until the **P.HIGH** or **P.LOW** icon flashes.
- Press  or  for select between high and low power level.
- Press the PTT button for save and exit.

Note: On channels 8-14 no power level selection is possible.

ANCE REQUIRED ble Radio Service) frequencies ations Commission) license. luded in the owner's manual. A annels 1 - 7 or 15 - 22, which serious penalties could result for of FCC rules, as stipulated in 02 (amended). o FCC which should be used for 2P GMRS users should also isions only, avoiding channel g prudent with the length of their ould be directed to the FCC at ailable on the FCC's website at	95.0
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the following national and g exposure of human being to Commission, Code of Federal (ANSI) / Institute of Electrical 1-1992 ngineers (IEEE) C95.1-1999 in and Measurements (NCRP) ing Radiation Protection ce with the general population ansmit no more than 50% of energy exposure only when
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