MIDLAND®

*MICRO*MOBILE®

15-WATT GMRS TWO-WAY RADIO

OWNER'S MANUAL

MXT115P

midlandusa.com

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INTRODUCTION

Congratulations on your purchase of a high-quality Midland product. Your MXT115 2-way radio represents state-of-the-art high-tech engineering. Designed for General Mobile Radio Service (GMRS) operation, this compact package is big on performance. It is a quality piece of electronic equipment, constructed with the finest components. The circuitry is all solid-state and mounted on a rugged printed circuit board. The MXT115 radio is designed for reliability and trouble-free performance for years to come.

FEATURES

- 15-Watt GMRS Radio - High (15 W) and Lo (5 W) Power Settings
- 50 GMRS Channels (28 channels with pre-programmed privacy codes)
- 8 GMRS Repeater Channels
- Split Privacy Tones
- Water Resistant – IP67
- NOAA Weather Radio
- Narrow and Wide Band
- 154 Privacy Codes (50 CTCSS/104 DCS)
- Adjustable Color and Brightness Settings for Backlight on LCD
- Call Function and Scan Function
- Dual Watch Function
- Silent Operation and Keypad Lock
- Scan List Editing
- External Speaker Jack
- Public Address (PA) Speaker Jack
- Wired Intercom Jack
- USB-C Port for device charging
- 3-Year Warranty
- Compatible with FRS/GMRS radios
- GMRS License Required

FCC Notice:
The MXT115 operates on GMRS (General Mobile Radio Service) frequencies, which require a Federal Communications Commission (FCC) license. You must be licensed prior to operating your MXT115 radio. Serious penalties may result from unlicensed use of GMRS frequencies, in violation of FCC rules, as stipulated in the Communications Act's Sections 501 and 502 (amended). You will be issued a call sign by the FCC that should be used for station identification when operating your GMRS radio. You should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other GMRS users, and being prudent with the length of your transmission time. To obtain a license or ask questions about the license application, contact the FCC at 1-888-CALL FCC or go to the FCC's website:
http://www.fcc.gov and request form 605.

Exposure to Radio Frequency Energy

Your Midland MXT115 is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:

- United States Federal Communications Commission, Code of Federal Regulations: 47 CFR part 2 sub-part J
- American National Standards Institute (ANSI)/Institute of Electrical & Electronics Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1999 Edition
- National Council on Radiation Protection and Measurements (NCRP) of the United States, Report 86, 1986
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

To control your exposure and ensure compliance with the general population or uncontrolled environment exposure limits:

1. Transmit no more than 50% of the time. The radio generates measurable RF energy exposure only when transmitting.
2. Maintain a minimum safe separation distance of 24 inches (60 cm) between the antenna and all persons when transmitting.
3. Use an antenna with maximum gain of 2.15 dBi including coax losses.

FCC Compliance Statements

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

Changes or modifications not expressly approved by Midland Radio Corporation could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INSTALLING YOUR RADIO

Preparation for Installation

The MXT115 is designed to be installed in a 12-volt negative ground vehicle. Most current U.S. and foreign vehicles use a negative ground system, but some older models and some newer large trucks may have a positive ground. Check the specifications for your vehicle before beginning installation. Generally, you have a negative ground system if the negative (-) battery terminal is connected to the engine block or vehicle chassis. Contact your dealer if you are unable to determine your vehicle's polarity system.

- Read these instructions completely before beginning installation.
- Read and follow all safety precautions in your vehicle's Service Manual.
- Make sure all necessary tools, materials, and parts are on hand.
- Disconnect the negative (-) battery cable before installing your radio. Be sure to reconnect the cable when installation is complete.
- Determine a mounting location for your radio. Choose a location that does not impair visibility or interfere with driving. Also take into consideration the routing and length of the lead wires and cables to the power source, antenna, and/or optional external speaker.

CAUTION: *Extreme care should be exercised when drilling into the dash to avoid damage to under dash electronic ignition, cruise control, instrument and/or accessory wiring.*

Installing the Antenna

An external 50 Ω antenna is required for the MXT115. The standard antenna is intended to be attached to the vehicle's roof, trunk or similar location. Specific installation requirements vary between vehicles. Use the following guidelines to install the antenna:

Where you locate your antenna does make a difference

1. Metal surfaces covered by fibreglass or vinyl may affect radio range. Avoid these locations.
2. Mount the antenna as high on the vehicle as possible. The higher the better.
3. If possible, mount the antenna in the center of whatever surface you choose.

4. The antenna cable is 19.7 feet (6 meters) long. Be sure the mounting location will allow for connection of the cable to the radio.
5. Be sure the mounting location is clean and dry before installing the antenna.
6. Route the antenna cable through an accessible entry point, such as a rear door or trunk opening.
7. When routing the antenna cable inside the vehicle, keep the cable away from noise sources, such as the ignition system, gauges, etc.
8. Exercise care to prevent cable damage. Make use of existing gaskets, grommets and weather stripping to protect the cable along its route.

Electrical and Rear Panel Connections

Refer to Rear Panel Connections for rear panel connector locations.
NOTE: Radio antenna installation is covered separately.

Connecting the Radio to a Power Source

1. The MXT115 can be powered by connecting the supplied power cable to a 12 V DC port in the vehicle.
   OR
2. Remove the 12 V power plug from the power cable and connect the RED positive lead to either (a) the fuse block or (b) directly to the positive post of the vehicle's battery.

NOTE: The in-cabin fuse block is usually the most convenient connection point. The power cord positive lead can also be connected to the accessory terminal on the fuse block or ignition switch, so the radio automatically turns off when the ignition is turned off.

3. Tightly connect the BLACK ground lead directly to the vehicle's metal frame. A good direct metal-to-metal ground is essential for optimum performance.

Fuse

The power cord and 12V vehicle adapter both contain a 5A fuse, type F5AL, 0.25 x 1.25 in. (6 x 30 mm) and should be replaced with the same type when necessary.

Connecting the Microphone

Insert the microphone connector into the front of the MXT115 by lining up the key with the mating slot and gently twisting the locking collar clockwise to secure the connection. To remove, twist the locking collar counterclockwise and gently pull the connection free. The microphone bracket can then be attached to the vehicle dash or other convenient location.

Using an External Speaker

The MXT115 provides a jack for connection of an optional external speaker (sold separately). The external speaker jack is compatible with a 3.5 mm mono audio plug. When selecting an external speaker, ensure the speaker has 8-ohm impedance and is rated for 4 Watts or more.
NOTE: When an external speaker is connected, the radio's internal speaker is automatically disabled.

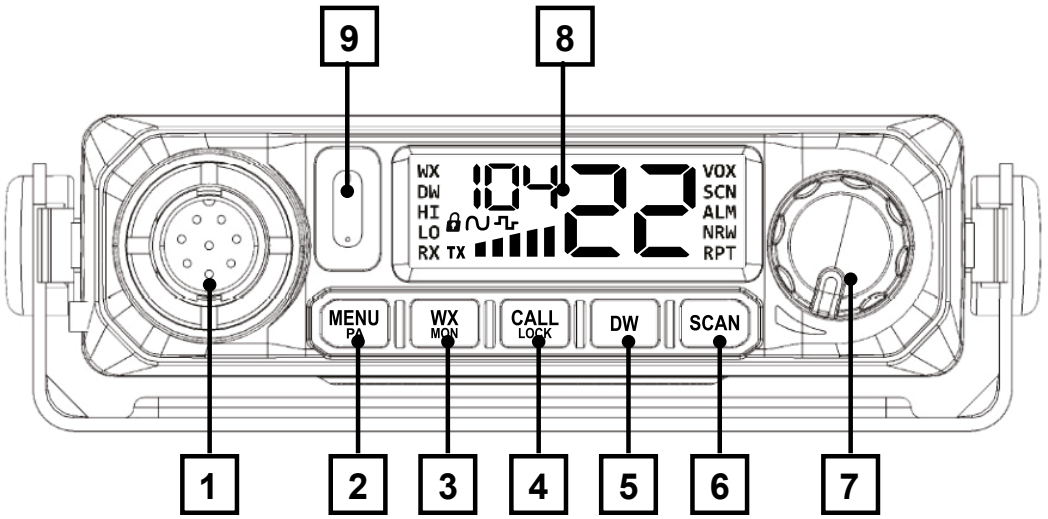
Using a Public Address Speaker

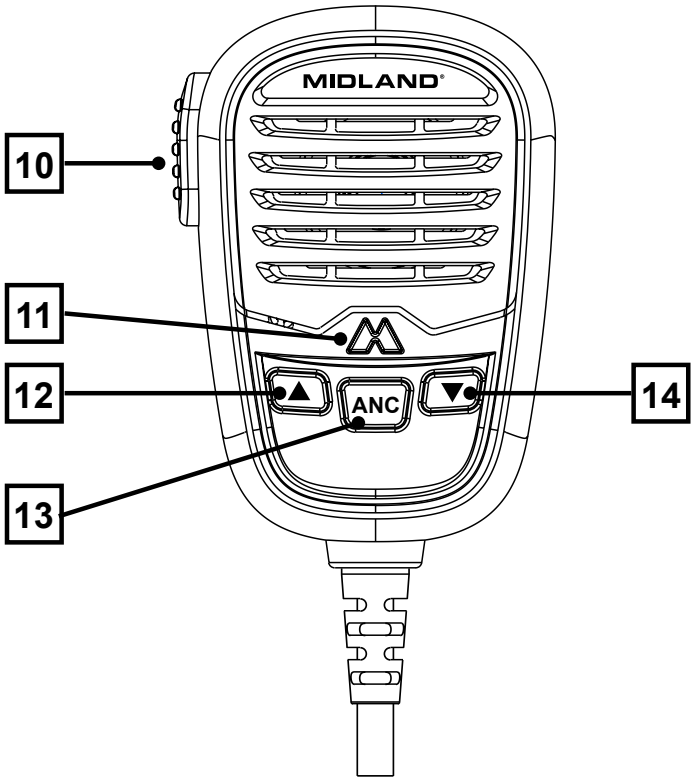
The MXT115 provides a jack for connection of an optional public address speaker (sold separately) normally mounted on the vehicle exterior.
The PA speaker jack is compatible with a 3.5 mm mono audio plug. When selecting a passive PA speaker, ensure the speaker is weatherproof, has 8-ohm impedance and is rated for 4 Watts or more. Weatherproof amplified PA speakers may also be used.

Using an Intercom

The MXT115 provides a rear-panel jack for connection to a wired intercom or headsets (sold separately) with a TA5 mini XLR connector.

MXT115 Controls

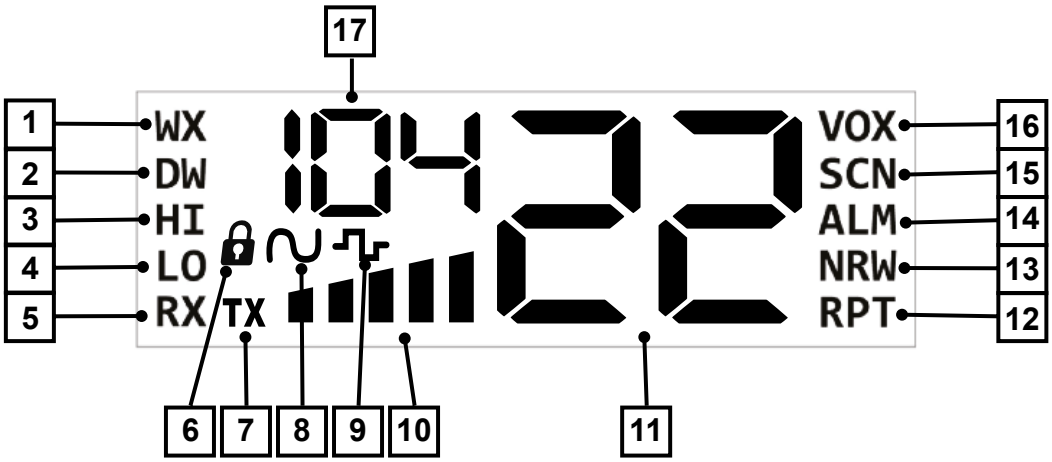




Callout	Use	Button Label	Short Press Function	Long Press Function	Other Function
1	Mic Jack				
2	Menu and PA button	MENU PA	Menu selection	Toggle PA/GMRS mode	
3	Weather and monitor button	WX MON	Toggle between weather and GMRS modes	Toggle MON on/off in GMRS mode. Toggle WX alert on/off in WX mode	
4	Call and lock button	CALL LOCK	Transmit call alert tone	Toggle keypad lock	
5	Dual watch button	DW	Toggle dual watch on/off	Assign current channel selection as watch channel	
6	Scan button	SCAN	Toggle scan on/off	Toggle channel in/out scan list	
7	Power / volume knob				Off/on/ volume
8	Display				
9	USB-C				

Callout	Use	Button Label	Short Press Function	Long Press Function	Other Function
10	Push to talk				
11	ANC/TX indicator				Blue = ANC on White = ANC off Red = Transmit
12	Channel up	▲	Channel up/ Menu setting up	Scroll channel up	
13	Automatic noise cancellation button	ANC	Menu selection	Toggle ANC on/off	
14	Channel down	▼	Channel down/ Menu setting down	Scroll channel down	

MXT115 Display



Callout	Indication	Use
1	WX	Weather mode indicator, blinks when weather alert detection enabled
2	DW	Dual watch mode indicator, blinks when dual watch enabled
3	HI	High power indicator
4	LO	Low power indicator
5	RX	Receive indicator
6	(padlock)	Keypad lock indicator
7	TX	Transmit indicator
8	(sine wave)	CTCSS indicator
9	(square wave)	DCS indicator
10	(bar graph)	RX and TX signal strength indicator
11	01-50, 01-10, PA	Channel number
12	RPT	Repeater channel indicator
13	NRW	Narrow bandwidth indicator
14	ALM	Weather alarm indicator, flashing when weather alert detected
15	SCN	Scan indicator, blinks when scan enabled
16	VOX	VOX indicator, on when VOX level is selected
17	01-50, 001-104	Menu/Privacy code selection indicator, privacy code normally displayed

Operation
Many of the operational buttons have a short and long press function based on a two second timer. If the button is pressed then released in less than two seconds, the short press function is performed after the button is released. If the button is pressed for longer than two seconds, the long press function is performed after the two second time elapses.

Power On/Off
Rotate the Power/Volume knob clockwise past the detent to turn the radio on. Rotate the Power/Volume knob fully counterclockwise past the detent to turn the radio off.

Volume Control
Rotate the Power/Volume knob clockwise to increase the volume and counterclockwise to decrease the volume.

Channel Selection
Press the ▲ button on the microphone to increment the channel selection and the ▼ button on the microphone to decrement the channel selection.

Press and hold the ▲ or ▼ button to rapidly scroll the channel selection.

Transmit Mode
Press and hold PTT to initiate transmit mode. While holding PTT, speak clearly in a normal voice with the microphone positioned 1 to 2 inches from your mouth. Release PTT when finished speaking to return to standby or receive mode. If PTT is pressed while in weather mode, the radio will revert to GMRS mode.

MENU/PA Button
Press the MENU/PA button to access the first menu selection. Press the MENU/PA button again to step to the next menu selection. If no button is pressed for 10 seconds, the radio will exit the menu function.

Long press the MENU/PA button to switch from GMRS mode to PA mode. Long press the MENU/PA button again to switch back to GMRS mode. Public address mode routes microphone audio to the PA speaker so announcements may be made over the loudspeaker.

WX/MON Button
Press the WX/MON button to toggle between GMRS mode and Weather mode. The radio will scan the weather channels and stop on a channel when a signal is detected. The user may turn WX scan off by pressing the SCAN button, then use the ▲ or ▼ buttons to manually select a weather channel.

While in weather mode, with weather scan mode off, long press the WX/MON button to toggle weather alert detection on/off. The ALM indicator will display when weather alert is enabled and the weather alert channel is selected. The WX indicator will flash while the radio is in GMRS mode with weather alert detection enabled. When a weather alert is detected the ALM indicator will flash, and an eight second alarm tone will sound. The radio will then automatically switch to the weather mode.

While in GMRS mode, long press the WX/MON button to toggle Monitor mode on/off. While Monitor mode is enabled, noise squelch will be set to minimum and any CTCSS/DCS selection for the channel will be defeated. The radio will display MON 01 (01 = selected operational channel number) while monitor mode is enabled.

CALL/LOCK Button

While in GMRS mode, press the CALL/LOCK button to transmit a call alert tone. A ring tone burst is transmitted over the radio channel intended to garner the attention of listeners. The call alert tone can be changed or selected as off using the call alert, CA, menu function.

Long press the CALL/LOCK button to toggle the keypad lock function off/on. The display will briefly show LCK$_{ON}$ or LCK$_{OF}$ when the keypad lock is toggled. The keypad lock indicator (padlock) will display while the keypad lock function is on. Power on/off, volume, PTT and call alert still function while the keypad is locked.

DW Button

Press the DW button to initiate dual watch mode, which will monitor the currently selected operational channel and the user selected watch channel for activity.

To configure the dual watch function, start with dual watch disabled. First select the desired watch channel, then long press the DW button to assign the selected channel as the watch channel. The display will show the DW indicator while the user selected watch channel is displayed. The user then proceeds to select the normal operational channel, and then press the DW button to initiate dual watch mode. The radio display will alternate between the selected operational channel and the user selected watch channel to check for activity on either and blink the DW indicator while dual watch mode is active. If activity is detected on either channel, the radio will stop on that channel for the duration of the reception plus a 5 second hold time to allow the user to reply. If PTT is pressed while dual watch mode is enabled:

- If the radio was monitoring the channels for activity, the radio will transmit on the selected operational channel.
- If the radio was receiving, or during the hold time following receive or transmit, the radio will transmit on the channel it was receiving/holding on.

The radio will resume dual watch monitoring 5 seconds after PTT is released unless another signal is received on the channel. While the radio is in dual watch mode, press the DW button to turn dual watch off and exit to the selected operational channel.

While the radio is in dual watch mode, press the ▲ or ▼ button to swap the selected operational channel and the watch channel. This also toggles the default transmit channel between the selected operational channel and the watch channel. Note that dual watch mode can't be started while the assigned watch channel is selected.

SCAN Button

Press the SCAN button to initiate GMRS scan mode or Weather scan mode. The SCN indicator will blink while scan mode is active. The radio will scan through the channels in the GMRS scan list or the weather channel list until it finds a channel with a signal. The radio will stop on that channel for the duration of the reception plus a 5 second hold time to allow the user to reply. If PTT is pressed while GMRS scan mode is on:

- If the radio was scanning, the radio will transmit on the channel selected when scan was initiated.
- If the radio was receiving, or during the hold time following receive or transmit, the radio will transmit on the channel it was receiving/holding on.

The radio will resume scanning 5 seconds after PTT is released, unless another signal is received on the channel. While the radio is in scan mode, press the SCAN button to turn channel scanning off and:

- If the radio was scanning, exit to the channel selected when scan was initiated.
- If the radio was receiving, or during the hold time following receive or transmit, exit to the channel the radio was receiving/holding on.

While the radio is in scan mode, press the ▲ or ▼ button to resume scanning from the next channel up or down in the scan list.

While in GMRS standby mode, long press the SCAN button to toggle the currently selected GMRS channel in or out of the scan list. The SCN indicator will display if the selected channel is currently in the GMRS scan list.

ANC (Automatic Noise Cancellation) Button

Long press the ANC button on the microphone to toggle automatic noise cancellation on/off. When ANC is enabled, indicated by a blue colored "M", the microphone audio will be processed to remove excess background noise picked up when transmitting in noisy environments. ANC is best suited for noisy environments and may cause broken audio transmissions from soft spoken individuals when used in quiet environments. Long press the ANC button again to disable ANC, indicated by a white colored "M".

Menu Operation

Press the MENU button to access the first menu selection. Press the MENU button again to step to the next menu selection. Also note the microphone ANC button will duplicate the MENU selection operation. This allows menu navigation using only the microphone buttons. If no button is pressed for 10 seconds, the radio will exit the menu function.

CTCSS/DCS (Privacy Tone)

Continuous Tone Controlled Squelch System (CTCSS) and Continuous Digital Controlled Squelch System (CDCSS, short version DCS) are systems that allow groups of users to share the same channel without disturbing each other. When CTCSS or DCS is enabled for a selected channel, the radio speaker is muted to all incoming signals unless they carry the correct CTCSS tone or DCS code.

When a transmission with the correct tone/code is received, the mute is removed, and the voice audio can be heard. When the transmission ends, the channel is muted again. Transmissions that do not have the correct tone/code are not heard. Please note that users with different CTCSS/DCS selections transmitting on the same frequency at the same time create interference.

The direct channels (without repeater transmit frequency offset) have a single CTCSS/DCS selection per channel, the PT menu selection, which is applied to both transmit and receive. The repeater channels (with repeater transmit frequency offset) have separate selections for transmit and receive CTCSS/DCS, the TXC and RXC menu selections.

Privacy Tone (CTCSS/DCS for direct channels)

On direct channels, repeatedly press the MENU button until the PT menu selection is displayed. Use the ▲ or ▼ button to select between PT_{OF} or PT_{CT} or PT_{DC}, then press the MENU button to confirm the CTCSS/DCS type. Use the ▲ or ▼ button to choose the CTCSS tone number, 01 - 50, or DCS code number, 001 - 104 then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function.

Transmit Privacy Code (Transmit CTCSS/DCS for repeater channels)

On repeater channels, repeatedly press the MENU button until the TXC menu selection is displayed. Use the ▲ or ▼ button to select between TXC_{OF} or TXC_{CT} orTXC_{DC}, then press the MENU button to confirm the CTCSS/DCS type. Use the ▲ or ▼ button to choose the CTCSS tone number, 01 - 50 , or DCS code number, 001 - 104, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function.

Receive Privacy Code (Receive CTCSS/DCS for repeater channels)

On repeater channels, repeatedly press the MENU button until the RXC menu selection is displayed. Use the ▲ or ▼ button to select between RXC_{OF} or RXC_{CT} or RXC_{DC} , then press the MENU button to confirm the CTCSS/DCS type. Use the ▲ or ▼ button to choose the CTCSS tone number, 01 - 50 , or DCS code number, 001 - 104, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function.

Transmit Power

On channels where the transmit power level can be changed, repeatedly press the MENU button until the PWR menu selection is displayed. Use the ▲ or ▼ button to toggle between PWR_{LO} or PWR_{HI} , then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. When transmit power is selected as low, the LO indicator will be displayed. When transmit power is selected as high, the HI indicator will be displayed. FCC regulations limit power on channels 1-7, 23-26, 31-33, 42-45 and 50 to five Watts, so the LO indicator will be displayed for these channels. FCC regulations prohibit mobile radios from transmitting on channels 8-14 and 34-37, so neither LO nor HI indicators will be displayed for these channels.

Squelch Threshold

Repeatedly press the MENU button until the SQ menu selection is displayed. Use the ▲ or ▼ button to select between SQ_{OF} or $^{SQ}01\text{-}09$, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. Lower levels will allow reception of weaker noisier signals. Higher levels will mute weaker signals and only allow stronger signals to be heard.

Roger Beep

Repeatedly press the MENU button until the RB menu selection is displayed. Use the ▲ or ▼ button to toggle between RB_{OF} or RB_{ON}, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. The roger beep is a short beep sent over the radio channel when PTT is released to alert listeners that the channel is free.

Call Alert

Repeatedly press the MENU button until the CA menu selection is displayed. Use the ▲ or ▼ button to select between CA_{OF} or $^{CA}01\text{-}05$, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. Selecting CA_{OF} will disable the call alert function. The CALL button sends the selected ring tone burst over the radio channel to garner the attention of listeners.

Keypad Beep

Repeatedly press the MENU button until the BP menu selection is displayed. Use the ▲ or ▼ button to toggle between BP_{OF} or BP_{ON}, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. Keypad beeps provide audible confirmation the user has pressed a button.

Repeater Channels

Repeatedly press the MENU button until the RPT menu selection is displayed. Use the ▲ or ▼ button to toggle between RPT_{OF} or RPT_{ON}, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. When the repeater selection is on, eight additional channels will be added to the channel list, which display as 15 RPT – 22 RPT. These channels have the same receive frequencies as direct channels 15 – 22 but have their transmit frequency offset for accessing GMRS repeaters. The RPT indicator will be displayed when a channel with transmit frequency offset is selected.

Display Backlight Color

Repeatedly press the MENU button until the COL menu selection is displayed. Use the ▲ or ▼ button to select between COL 01-07 (white, blue, green, red, cyan, purple, or yellow color selections), then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function.

Display Backlight Brightness

Repeatedly press the MENU button until the DIM menu selection is displayed. Use the ▲ or ▼ button to select between DIM OF, DIM 01 (dim), DIM 02 (medium), or DIM 03 (bright), then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function.

Narrow Channel Bandwidth

GMRS radios may operate in wide band mode, maximum 20 kHz occupied bandwidth. FRS radios are limited to narrow band mode, maximum 12.5 kHz occupied bandwidth, by FCC regulations. For best clarity, all radios communicating together should use the same bandwidth. GMRS radios may use narrow band mode to provide optimum communication and spectrum efficiency with both FRS and GMRS radios which share the 12.5 kHz spaced FRS/GMRS channel frequencies. For systems using wide band GMRS radios, the MXT115 narrow channel bandwidth can be switched off.

Repeatedly press the MENU button until the NRW menu selection is displayed. Use the ▲ or ▼ button to toggle between NRW OF or NRW ON, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. The NRW indicator will display when narrow channel bandwidth is selected for the channel.

Microphone Gain

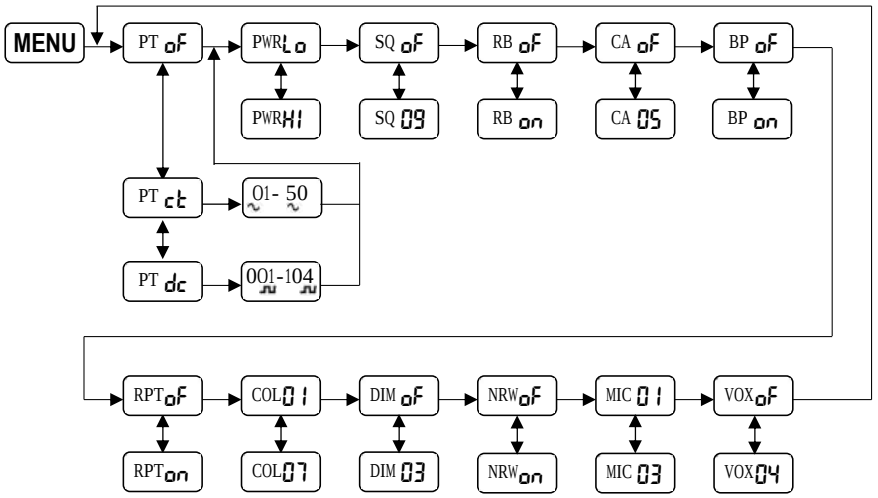
Repeatedly press the MENU button until the MIC menu selection is displayed. Use the ▲ or ▼ button to select between MIC 01-03, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. Level 01 is the lowest gain setting, requiring a stronger speaking voice to reach full modulation. nor HI indicators will be displayed for these channels.

VOX Threshold (Hands-Free Voice Activation)

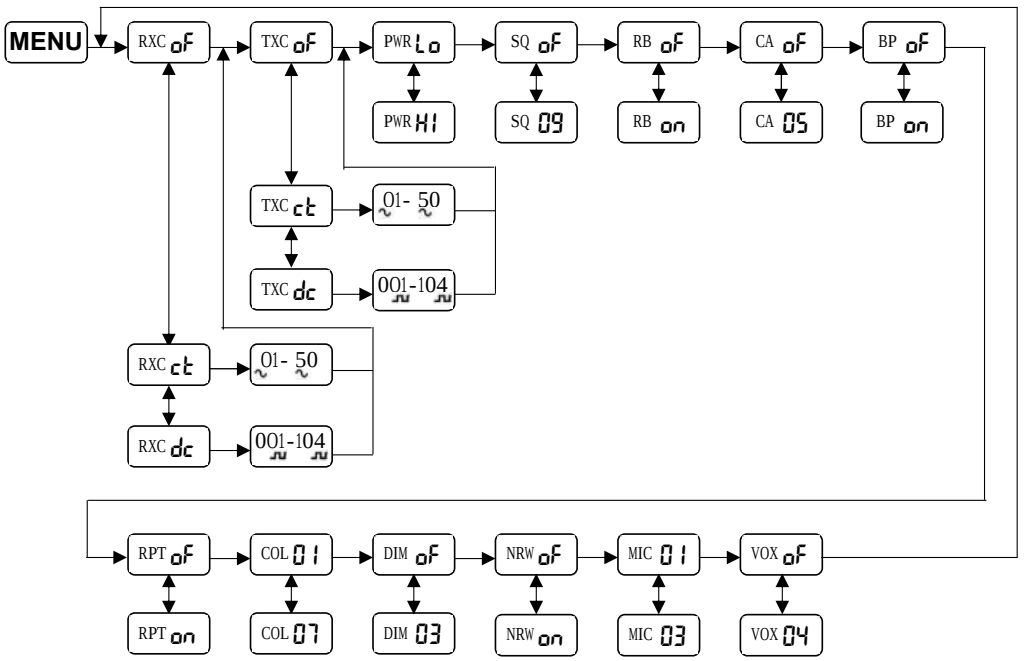
Repeatedly press the MENU button until the VOX menu selection is displayed. Use the ▲ or ▼ button to select between VOX OF or VOX 01-04, then press the MENU button again to save the setting and move to the next menu selection or press PTT to save the setting and exit the menu function. The VOX indicator will display when a VOX threshold level is selected. Level 01 is the most sensitive position, requiring the lowest level audio for transmit activation.

MENU QUICK REFERENCE

For Direct Channels



For Repeater Channels



Factory Default Settings

Press and hold PTT and WX while switching the radio on to restore the factory default settings.

CH	CH1
PA	OFF
MODE	GMRS
WX (alert)	OFF
LOCK	OFF
SCAN	OFF
PT (1-22)	OFF
TXC/RXC (15RPT-22RPT)	OFF/OFF
PT (23-50)	Per Table
PWR (1-7)	LO
PWR (8-14)	No TX
PWR (15-22)	HI
PWR (15RPT-22RPT)	HI

PWR (23-50)	Per Table
SQ	04
RB	OFF
CA	01
BP	ON
RPT	OFF
COL	02 (blue)
DIM	03 (bright)
NRW (1-50)	ON
NRW (15RPT-22RPT)	OFF
MIC	02
VOX	OFF

Specifications

GMRS Channels Frequency Range	50 GMRS channels including 28 GMRS channels with preset CTCSS/DCS 462.550 – 467.725 MHz
Weather Channels Frequency Range	10 WX xhannels 161.650 – 163.775 MHz
Operating Temperature	-22 to +122 °F
Nominal RF Output Power	High: 15 Watts, Low: 5 Watts
Modulation	11K0F3E / 16K0F3E
Audio Output Power	2 Watts
Frequency Response	300 to 3000 Hz

GMRS 50 Channel List

CH	Frequency MHz	Preset CTCSS/DCS	TX Power Selection
01	462.5625	NONE	5W
02	462.5875	NONE	5W
03	462.6125	NONE	5W
04	462.6375	NONE	5W
05	462.6625	NONE	5W
06	462.6875	NONE	5W
07	462.7125	NONE	5W
08	467.5625	NONE	No TX
09	467.5875	NONE	No TX
10	467.6125	NONE	No TX
11	467.6375	NONE	No TX
12	467.6625	NONE	No TX
13	467.6875	NONE	No TX
14	467.7125	NONE	No TX
15	462.5500	NONE	5/15W
16	462.5750	NONE	5/15W
17	462.6000	NONE	5/15W

GMRS 50 Channel List

CH	Frequency MHz	Preset CTCSS/DCS	TX Power Selection
18	462.6250	NONE	5/15W
19	462.6500	NONE	5/15W
20	462.6750	NONE	5/15W
21	462.7000	NONE	5/15W
22	462.7250	NONE	5/15W
23	462.5625	CTCSS 38 - 250.3	5W
24	462.6125	CTCSS 35 - 225.7	5W
25	462.6625	CTCSS 32 - 203.5	5W
26	462.7125	CTCSS 29 - 179.9	5W
27	462.5500	CTCSS 26 - 162.2	5/15W
28	462.6000	CTCSS 23 - 146.2	5/15W
29	462.6500	CTCSS 20 - 131.8	5/15W
30	462.7000	CTCSS 17 - 118.8	5/15W
31	462.5875	DCS 1 - 023	5W
32	462.6375	DCS 4 - 031	5W
33	462.6875	DCS 7 - 047	5W
34	467.5625	DCS 10 - 065	No TX

GMRS 50 Channel List

CH	Frequency MHz	Preset CTCSS/DCS	TX Power Selection
35	467.6125	DCS 13 - 073	No TX
36	467.6625	DCS 16 - 115	No TX
37	467.7125	DCS 19 - 131	No TX
38	462.5750	DCS 22 - 143	5/15W
39	462.6250	DCS 25 - 156	5/15W
40	462.6750	DCS 28 - 172	5/15W
41	462.7250	DCS 31 - 223	5/15W
42	462.5625	CTCSS 14 - 107.2	5W
43	462.6125	CTCSS 11 - 97.4	5W
44	462.6625	CTCSS 8 - 88.5	5W
45	462.7125	CTCSS 5 - 79.7	5W
46	462.5500	CTCSS 2 - 71.9	5/15W
47	462.6000	CTCSS 37 - 241.8	5/15W
48	462.6500	CTCSS 34 - 218.1	5/15W
49	462.7000	CTCSS 31 - 192.8	5/15W
50	462.5875	DCS 2 - 025	5W

GMRS Repeater Channel List

CH	RX Frequency MHz	TX Frequency MHz	TX Power Selection
15 RPT	462.550	467.550	5/15W
16 RPT	462.575	467.575	5/15W
17 RPT	462.600	467.600	5/15W
18 RPT	462.625	467.625	5/15W
19 RPT	462.650	467.650	5/15W
20 RPT	462.675	467.675	5/15W
21 RPT	462.700	467.700	5/15W
22 RPT	462.725	467.725	5/15W

Weather Channel List

CH	Frequency MHz		CH	Frequency MHz
1	162.550		6	162.500
2	162.400		7	162.525
3	162.475		8	161.650
4	162.425		9	161.775
5	162.450		10	163.275

CTCSS Frequency List

CH	Frequency MHz
1	67.0
2	71.9
3	74.4
4	77.0
5	79.7
6	82.5
7	85.4
8	88.5
9	91.5
10	94.8
11	97.4
12	100.0
13	103.5
14	107.2
15	110.9
16	114.8
17	118.8
18	123.0
19	127.3

CH	Frequency MHz
20	131.8
21	136.5
22	141.3
23	146.2
24	151.4
25	156.7
26	162.2
27	167.9
28	173.8
29	179.9
30	186.2
31	192.8
32	203.5
33	210.7
34	218.1
35	225.7
36	233.6
37	241.8
38	250.3

CH	Frequency MHz
39	69.3
40	159.8
41	165.5
42	171.3
43	177.3
44	183.5
45	189.9
46	196.6
47	199.5
48	206.5
49	229.1
50	254.1

DCS Code List

CDCSS Number	Octal Code
1	023
2	025
3	026
4	031
5	032
6	043
7	047
8	051
9	054
10	065
11	071
12	072
13	073
14	074
15	114
16	115
17	116
18	125
19	131
20	132

CDCSS Number	Octal Code
21	134
22	143
23	152
24	155
25	156
26	162
27	165
28	172
29	174
30	205
31	223
32	226
33	243
34	244
35	245
36	251
37	261
38	263
39	265
40	271

CDCSS Number	Octal Code
41	306
42	311
43	315
44	331
45	343
46	346
47	351
48	364
49	365
50	371
51	411
52	412
53	413
54	423
55	431
56	432
57	445
58	464
59	465
60	466

CDCSS Number	Octal Code
61	503
62	506
63	516
64	532
65	546
66	565
67	606
68	612
69	624
70	627
71	631
72	632
73	654
74	662
75	664
76	703
77	712
78	723
79	731
80	732

CDCSS Number	Octal Code
81	734
82	743
83	754
84	036
85	053
86	122
87	145
88	212
89	225
90	246
91	252
92	255
93	266
94	274
95	325
96	332
97	356
98	446
99	452
100	454

CDCSS Number	Octal Code
101	455
102	462
103	523
104	526

LIMITED WARRANTY (United States)

Subject to the exclusions set forth below, Midland Radio Corporation will repair or replace, at its option without charge, any Midland FRS/GMRS which fails due to a defect in material or workmanship within three years following the initial consumer purchase.

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Midland Radio Corporation
Warranty Service Department
5900 Parretta Drive,
Kansas City, MO 64120

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