



GMRS RADIO

OWNER'S MANUAL



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INTRODUCTION

Thank you for choosing the MXT295 radio from Midland Radio Corporation. Please read through this manual thoroughly to ensure you get peak performance from your radio. You can also find additional information about the MXT295 on our website at midlandusa.com or may contact our Customer Service team at (816) 241-8500 from 9 AM to 4 PM (CT) Monday through Friday for assistance.

FEATURES

- 15-Watt GMRS Radio - High (15 W) and Low (5 W) Power Settings
- Wireless Bluetooth® Microphone and Bluetooth® Headset Compatible
- 50 GMRS Channels (28 channels with pre-programmed privacy codes)
- 8 GMRS Repeater Channels
- Split Privacy Tones
- IP67 Waterproof and Dustproof
- 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
- Dual Watch Function
- Scan Function
- Keypad Lock
- Silent Operation
- 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

WARNING AND STATEMENTS

FCC Notice:

The MXT295 operates on GMRS (General Mobile Radio Service) frequencies, which require a Federal Communications Commission (FCC) license. You must be licensed prior to operating your MXT295 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 MXT295 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 following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 MXT295 is designed to be installed in a 12V negative ground vehicle. 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 behind the dash electronics and/or wiring.*

Installing the Mounting Bracket

1. Using the mounting bracket as a template, mark the location of each screw hole. Use a center punch, nail, or other sharp pointed object to mark the hole locations.
2. Attach the bracket with the supplied self-tapping screws. Tighten the screws securely. **DO NOT OVERTIGHTEN.**
3. Once the bracket is secured to the vehicle, slide the radio into the bracket. Be sure the radio locks into the bracket so it does not shift while the vehicle is in motion.

Installing the Antenna

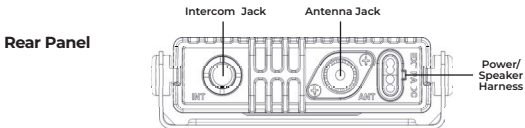
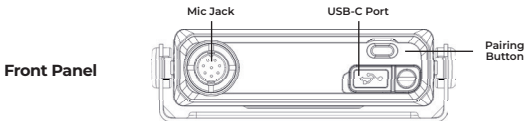
An external 50 Ω antenna is required for the MXT295. The standard antenna is intended to be attached to the vehicle's roof, trunk, or similar location. Specific installation requirements vary between vehicles. Use the following guidelines to install the antenna:

Where you locate your antenna does make a difference

1. Fiberglass or vinyl surfaces and coverings 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, Front Panel, and Rear Panel Connections

NOTE: Radio antenna installation is covered separately.



Connecting the Radio to a Power Source

1. The MXT295 can be powered by connecting the supplied power cable to a 12 V accessory port in the vehicle.
OR
2. Remove the 12 V accessory 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.

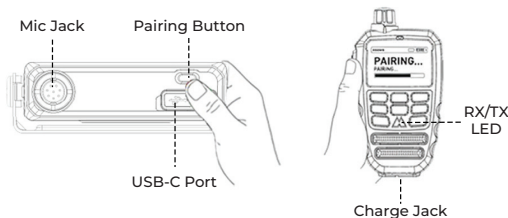
Fuse

The power cord and 12 V accessory port 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.

Pairing Bluetooth® Mic

The radio and included Bluetooth® microphone are paired from the factory. If a different microphone needs to be paired to the radio, use the following procedure.

1. Turn the microphone on. Since the microphone is not yet paired with the radio, it will pause at the Power On screen.
2. From the Power On screen, press and hold both the **UP** and **DOWN** buttons on the microphone until the **RX/TX LED** begins to blink red, green, and blue.
3. Press and hold the pairing button on the base unit for five seconds.
4. After the pairing button is released, the pairing button will blink red and green until the pairing process completes.



(Cont'd)

The pairing button on the base unit blinks red when it has power, but the mic is not on or connected.

Once the BT mic connects, the pairing button on the base will blink green. If the wired mic is connected and turned on, the pairing button on the base turns off.

When the BT mic is turned on, it will display the **POWER ON** screen with a blinking BT indicator and red blinking **RX/TX** indicator.

After it connects with the base, there is a "Base Unit Connected" voice prompt, the BT indicator on the display lights steady, and the red blinking **RX/TX** indicator turns off. Additionally, all channel information is displayed.

Connecting to a Wired Microphone

When using the wired microphone, insert the microphone connector into the front of the MXT295 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 counter clockwise and gently pull the connection free. The microphone holder can be attached to the vehicle dash or other convenient location.

Using an External Speaker

The MXT295 provides a jack for connection of an optional external speaker (sold separately). The **EXT-SP** 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.

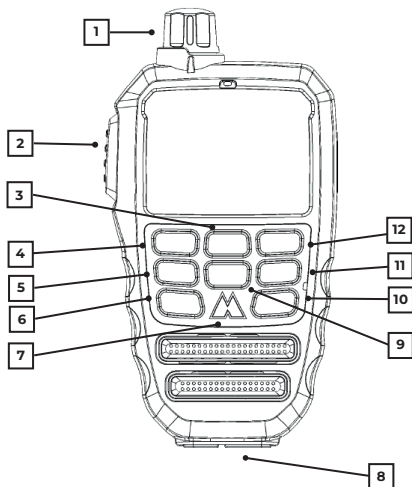
Using a Public Address Speaker

The MXT295 provides a jack for connection of an optional public address speaker (sold separately) normally mounted on the vehicle exterior. The **PA-SP** 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 a Wired Intercom

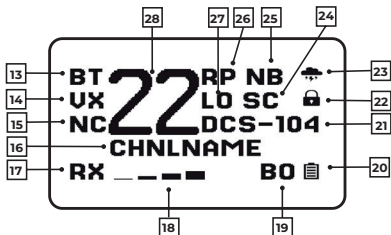
The MXT295 provides a rear-panel jack for connection to a wired intercom or headsets (sold separately) with a TA5 mini XLR connector.

MXT295 Controls



Call-out	Use	But-ton Label	Short Press Function	Long Press Function	Other Function
1	Power / Volume knob				Off/on/ volume
2	Push to Talk			Transmit	
3	Channel up	▲	Channel up/ Menu setting up	Scroll channel up	
4	Menu and PA button	MENU PA	Menu selection	Toggle PA/GMRS mode	
5	Call button	CALL	Transmit call alert tone		
6	Speaker select and keypad lock button	SPKR LOCK	Mic/base/both/ blue speaker selection	Toggle keypad lock	
7	RX/TX LED				Green=RX Red=TX
8	Charge Jack				
9	Channel down	▼	Channel down/ Menu setting down	Scroll channel down	
10	Scan button	SCAN	Toggle scan on/off	Toggle channel in/out scan list	
11	Dual watch button	DW	Toggle dual watch on/off	Assign current channel selection as watch channel	
12	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	

MXT295 Display



Callout	Indication	Use
13	BT	Bluetooth®-enabled indicator, blinks while connecting
14	VX	VOX-enabled indicator
15	NC	Automatic noise-canceling-enabled indicator
16	CHNLNAME	User-defined channel name, blank by default
17	RX, TX	Receive and transmit indicator
18	(bar graph)	RX and TX signal strength indicator
19	BA, HS, BO	Speaker selection indicator; BA(se), HS(et) or BO(th)
20	(battery)	Battery level indicator
21	CT-xx, DCS-xxx	CTCSS and DCS indicator; may also display MON
22	(pad lock)	Keypad lock-enabled indicator
23	(storm cloud)	Weather mode indicator, blinks when weather alert detection enabled
24	SC, DW	Scan and dual watch mode indicator, blinks when enabled
25	NB, WB	Bandwidth indicator
26	RP	Repeater channel indicator (transmit frequency offset)
27	HI, LO	High and low transmit power indicator
28	01, 99	Channel number indicator

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 counter clockwise past the detent to turn the radio off.

The Bluetooth® microphone supplied with the radio is paired from the factory and should connect soon after the microphone is turned on. If a different microphone needs to be paired to the radio, use the following procedure:

1. Turn the microphone on. Since the microphone is not yet paired with the radio, it will pause at the power-on screen.
2. From the power-on screen press and hold both the **UP** and **DOWN** buttons on the microphone until the **RX/TX LED** begins to blink red, green, and blue.
3. Press and hold the pairing button on the base unit for five seconds.
4. After the pairing button is released, the pairing button will blink red and green until the pairing process completes.

Volume Control

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

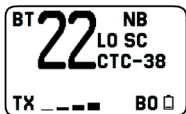
Channel Selection

Press the ▼ button on the microphone to decrement the channel selection and the ▲ button on the microphone to increment 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 one to two 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 ▼ or ▲ button to navigate up or down to the desired menu selection. Press the **MENU/PA** button again to select the displayed menu selection for editing. 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 jack so announcements may be made over the loudspeaker.



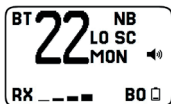
WX/MON Button

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** where the **CTCSS/DCS** selection would normally display while monitor mode is enabled.



CALL Button

While in GMRS mode, press the **CALL** 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 TONE** menu function.

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 **DW** 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 five 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 five 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: Dual watch mode can't be started while the assigned watch channel is selected.

SPKR/LOCK Button

Press the **SPKR/LOCK** button to toggle the speaker selection between **BA**(se), **HS**(et), or **BO**(th) selections. **BA**(se) represents the internal speaker in the base unit or any speaker connected the **EXT-SP** jack. **HS**(et) represents the speaker in the wired or Bluetooth MXT microphone.

Long press the **SPKR/LOCK** button to toggle the keypad lock function off/on. 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.

SCAN Button

Press the **SCAN** button to initiate GMRS scan mode or Weather scan mode. The **SC** 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 five 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 five 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 **SC** indicator will display if the selected channel is currently in the GMRS scan list.

Menu Operation

Press the **MENU** button to access the first menu selection. Press the ▼ or ▲ button to navigate up or down to the next menu selection. Press the **MENU** button to select a menu item, then press ▼ or ▲ button to select options for the displayed menu item. Press the **MENU** button to select and save the menu item option and return to the radio menu options; or press **PTT** to select and save the menu item option and exit the radio menu. If no button is pressed for 10 seconds, the radio will exit the menu function.

CTCSS/DCS (Privacy Code)

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.

The direct channels (without repeater transmit frequency offset) have a single **CTCSS/DCS** selection per channel, the **PRIVACY** 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 Code (CTCSS/DCS for direct channels)

On direct channels, press the **MENU** button to access the radio menu options, then use the ▼ or ▲ button to navigate up or down to the **PRIVACY** menu selection. Press the **MENU** button to select the **PRIVACY** menu, then use the ▼ or ▲ button to choose between **OFF**, **CTCSS** or **DCS**. Press the **MENU** button to choose the desired option, then use the ▼ or ▲ button to choose the desired **CTCSS** tone or **DCS** code number. Press the **MENU** button again to save the **PRIVACY** selection and return to the radio menu options; or press **PTT** to save the **PRIVACY** selection and exit the radio menu.

Transmit Privacy Code

(Transmit CTCSS/DCS for repeater channels)

On repeater channels, press the **MENU** button to access the radio menu options, then use the ▼ or ▲ button to navigate up or down to the **TX CODE** menu selection. Press the **MENU** button to select the **TX CODE** menu, then use the ▼ or ▲ button to choose between **OFF**, **CTCSS** or **DCS**. Press the **MENU** button to choose the desired option, then use the ▼ or ▲ button to choose the desired **CTCSS** tone or **DCS** code number. Press the **MENU** button again to save the **TX CODE** selection and return to the radio menu options; or press **PTT** to save the **TX CODE** selection and exit the radio menu.

Receive Privacy Code

(Receive CTCSS/DCS for repeater channels)

On repeater channels, press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **RX CODE** menu selection. Press the **MENU** button to select the **RX CODE** menu, then use the ▼ or ▲ button to choose between **OFF**, **CTCSS**, or **DCS**. Press the **MENU** button to choose the desired option, then use the ▼ or ▲ button to choose the desired **CTCSS** tone or **DCS** code number. Press the **MENU** button again to save the **RX CODE** selection and return to the radio menu options; or press **PTT** to save the **RX CODE** selection and exit the radio menu.

Transmit Power

On channels where the transmit power level can be changed, press the **MENU** button to access the radio menu then use the ▼ or ▲ button to navigate up or down to the **TX POWER** menu selection. Press the **MENU** button to select the **TX POWER** menu, then use the ▼ or ▲ button to choose between **HI** or **LO** power options. Press the **MENU** button again to save the **TX POWER** selection and return to the radio menu options; or press **PTT** to save the **TX POWER** selection and exit the radio menu. 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 5 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.

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 MXT295 channel bandwidth can be switched to wide band mode.

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **BANDWIDTH** menu selection. Press the **MENU** button to select the **BANDWIDTH** menu, then use the ▼ or ▲ button to choose between **NARROW** or **WIDE** channel bandwidth. Press the **MENU** button again to save the **BANDWIDTH** selection and return to the radio menu options; or press **PTT** to save the **BANDWIDTH** selection and exit the radio menu. The **NB** indicator will display when narrow channel bandwidth is selected for the channel.

Squelch Threshold Level

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **SQ LEVEL** menu selection. Press the **MENU** button to select the **SQ LEVEL** menu, then use the ▼ or ▲ button to choose the desired squelch threshold level. Press the **MENU** button again to save the **SQ LEVEL** selection and return to the radio menu options; or press **PTT** to save the **SQ LEVEL** selection and exit the radio menu. 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

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **ROGER BEEP** menu selection. Press the **MENU** button to select the **ROGER BEEP** menu, then use the ▼ or ▲ button to choose between **OFF** or **ON**. Press the **MENU** button again to save the **ROGER BEEP** selection and return to the radio menu options; or press **PTT** to save the **ROGER BEEP** selection and exit the radio menu. 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

Press the **MENU** button to access the radio menu then use the ▼ or ▲ button to navigate up or down to the **CALL TONE** menu selection. Press the **MENU** button to select the **CALL TONE** menu, then use the ▼ or ▲ button to choose between OFF or 1-5 call tone options. Press the **MENU** button again to save the **CALL TONE** selection and return to the radio menu options; or press **PTT** to save the **CALL TONE** selection and exit the radio menu. Selecting **OFF** 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

Press the **MENU** button to access the radio menu then use the ▼ or ▲ button to navigate up or down to the **KEY BEEP** menu selection. Press the **MENU** button to select the **KEY BEEP** menu, then use the ▼ or ▲ button to choose between **OFF** or **ON**. Press the **MENU** button again to save the **KEY BEEP** selection and return to the radio menu options; or press **PTT** to save the **KEY BEEP** selection and exit the radio menu. Keypad beeps provide audible confirmation the user has pressed a button.

Repeater Channels

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **REPEATER CH** menu selection. Press the **MENU** button to select the **REPEATER CH** menu, then use the ▼ or ▲ button to choose between **OFF** or **ON**. Press the **MENU** button again to save the **REPEATER CH** selection and return to the radio menu options; or press **PTT** to save the **REPEATER CH** selection and exit the radio menu. Eight additional channels will be added to the channel list when the repeater selection is on, which display as 15 **RP** – 22 **RP**. These channels have the same receive frequencies as direct channels 15 – 22, but have their transmit frequency offset for accessing GMRS repeaters. The **RP** indicator will be displayed when a channel with transmit frequency offset is selected.

Screen (Backlight) Color

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **SCREEN COLOR** menu selection. Press the **MENU** button to select the **SCREEN COLOR** menu, then use the ▼ or ▲ button to choose between 01-07 backlight color options (white, blue, green, red, cyan, purple or yellow). Press the **MENU** button again to save the **SCREEN COLOR** selection and return to the radio menu options; or press **PTT** to save the **SCREEN COLOR** selection and exit the radio menu.

Backlight Brightness

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **BACKLIGHT** menu selection. Press the **MENU** button to select the **BACKLIGHT** menu, then use the ▼ or ▲ button to choose between **OFF** or 01 (dimmiest) - 03 (brightest) backlight brightness options. Press the **MENU** button again to save the **BACKLIGHT** selection and return to the radio menu options; or press **PTT** to save the **BACKLIGHT** selection and exit the radio menu.

Keypad Backlight

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **KEY BACKLIGHT** menu selection. Press the **MENU** button to select the **KEY BACKLIGHT** menu, then use the ▼ or ▲ button to choose between **OFF** or **ON**. Press the **MENU** button again to save the **KEY BACKLIGHT** selection and return to the radio menu options; or press **PTT** to save the **KEY BACKLIGHT** selection and exit the radio menu.

Automatic Noise Cancellation

When automatic noise cancellation (**ANC**) is enabled, 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.

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **ANC** menu selection. Press the **MENU** button to select the **ANC** menu, then use the ▼ or ▲ button to choose between **OFF** or **ON**. Press the **MENU** button again to save the **ANC** selection and return to the radio menu options; or press **PTT** to save the **ANC** selection and exit the radio menu. The **NC** indicator will be displayed when active noise cancellation is enabled.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference including received interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

VOX Threshold

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **VOX** menu selection. Press the **MENU** button to select the **VOX** menu, then use the ▼ or ▲ button to choose between **OFF** or 01-04 **VOX** threshold options. Press the **MENU** button again to save the **VOX** selection and return to the radio menu options; or press **PTT** to save the **VOX** selection and exit the radio menu. Selecting **OFF** will disable the **VOX** function. The **VX** Indicator will be displayed when a **VOX** threshold level has been selected. Level 01 is the most sensitive position, requiring the lowest level audio for transmit activation.

Bluetooth Audio Routing

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **BT AUDIO** menu selection. Press the **MENU** button to select the **BT AUDIO** menu, then use the ▼ or ▲ button to choose between **MICROPHONE**, **MIDLAND HDST**, **GENERIC HDST**, or **MIC/SPKR**. Press the **MENU** button again to save the **BT AUDIO** selection. **MICROPHONE** routes audio to and from the MXT Bluetooth microphone. **MIDLAND HDST** routes audio to and from the headsets in the Midland Bluetooth intercom system. **GENERIC HDST** routes audio to and from compatible Bluetooth headsets. **MIC/SPKR** routes audio to a Midland Bluetooth speaker and from the MXT Bluetooth microphone.

Bluetooth Pairings

Press the **MENU** button to access the radio menu, then use the ▼ or ▲ button to navigate up or down to the **BT PAIRINGS** menu selection. Press the **MENU** button to select the **BT PAIRINGS** menu, then use the ▼ or ▲ button to choose between **HEADSET**, **WIRELESS PTT**, **RESET PAIRING**, and **FACTORY RESET**. Press the **MENU** button again to select the **BT PAIRING** option. **HEADSET** should be used to pair with a Midland Bluetooth headset or generic headset. **WIRELESS PTT** should be used to pair with a Midland wireless **PTT** button. **RESET PAIRING** will remove the headset and wireless **PTT** pairings from memory. **FACTORY RESET** will also remove the MXT Bluetooth microphone pairing.

Factory Default Settings

Press and hold **PTT** and **WX** while switching the radio on to restore the MXT295 factory default settings.

MODE	GMRS
CH	CH1
PA	OFF
WX(alert)	OFF
LOCK	OFF
SCAN	OFF
PRIVACY (1-22)	OFF
TX CODE/RX CODE (15RPT-22RPT)	OFF/OFF
PRIVACY (23-50)	Per Table
POWER (1-7)	LO
POWER (8-14)	No TX
POWER (15-22)	HI
POWER (15RPT-22RPT)	HI
POWER (23-50)	Per Table
BANDWIDTH (1-50)	NARROW
BANDWIDTH (15RPT-22RP)	WIDE
SQUELCH	04
ROGER BEEP	OFF
CALL TONE	01
KEY TONE	ON
REPEATER CH	OFF
SCREEN COLOR	02 (blue)
BACKLIGHT	03 (bright)
KEY BACKLIGHT	ON
VOX	OFF
BT AUDIO	MICROPHONE
BT PAIRINGS	Retain (reset is separate in BT pairing menu)

Specifications

GMRS Channels	50 GMRS channels Including 28 GMRS channels w/preset CTCSS/DCS
Frequency Range	462.550 – 467.725 MHz
Weather Channels	10 weather channels
Frequency Range	161.650 – 163.275 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
Fuse(s)	5 Amp, 5AL, 0.25 x 1.25 in.

GMRS 50 Channel List

CH	Frequency MHz	Preset CTCSS/DCS	TX Power Selection	CH	Frequency MHz	Preset CTCSS/DCS	TX Power Selection
01	462.5625	NONE	5W	26	462.7125	CTCSS 29 - 179.9	5W
02	462.5875	NONE	5W	27	462.5500	CTCSS 26 - 162.2	5/15W
03	462.6125	NONE	5W	28	462.6000	CTCSS 23 - 146.2	5/15W
04	462.6375	NONE	5W	29	462.6500	CTCSS 20 - 131.8	5/15W
05	462.6625	NONE	5W	30	462.7000	CTCSS 17 - 118.8	5/15W
06	462.6875	NONE	5W	31	462.5875	DCS 1 - 023	5W
07	462.7125	NONE	5W	32	462.6375	DCS 4 - 031	5W
08	467.5625	NONE	No TX	33	462.6875	DCS 7 - 047	5W
09	467.5875	NONE	No TX	34	467.5625	DCS 10 - 065	No TX
10	467.6125	NONE	No TX	35	467.6125	DCS 13 - 073	No TX
11	467.6375	NONE	No TX	36	467.6625	DCS 16 - 115	No TX
12	467.6625	NONE	No TX	37	467.7125	DCS 19 - 131	No TX
13	467.6875	NONE	No TX	38	462.5750	DCS 22 - 143	5/15W
14	467.7125	NONE	No TX	39	462.6250	DCS 25 - 156	5/15W
15	462.5500	NONE	5/15W	40	462.6750	DCS 28 - 172	5/15W
16	462.5750	NONE	5/15W	41	462.7250	DCS 31 - 223	5/15W
17	462.6000	NONE	5/15W	42	462.5625	CTCSS 14 - 107.2	5W
18	462.6250	NONE	5/15W	43	462.6125	CTCSS 11 - 97.4	5W
19	462.6500	NONE	5/15W	44	462.6625	CTCSS 8 - 88.5	5W
20	462.6750	NONE	5/15W	45	462.7125	CTCSS 5 - 79.7	5W
21	462.7000	NONE	5/15W	46	462.5500	CTCSS 2 - 71.9	5/15W
22	462.7250	NONE	5/15W	47	462.6000	CTCSS 37 - 241.8	5/15W
23	462.5625	CTCSS 38 - 250.3	5W	48	462.6500	CTCSS 34 - 218.1	5/15W
24	462.6125	CTCSS 35 - 225.7	5W	49	462.7000	CTCSS 31 - 192.8	5/15W
25	462.6625	CTCSS 32 - 203.5	5W	50	462.5875	DCS 2 - 025	5W

GMRS Repeater Channel List

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

Weather List

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

CTCSS Frequency List

CTCSS Number	Frequency Hz	CTCSS Number	Frequency Hz	CTCSS Number	Frequency Hz	CTCSS Number	Frequency Hz
1	67.0	14	107.2	27	167.9	40	159.8
2	71.9	15	110.9	28	173.8	41	165.5
3	74.4	16	114.8	29	179.9	42	171.3
4	77.0	17	118.8	30	186.2	43	177.3
5	79.7	18	123.0	31	192.8	44	183.5
6	82.5	19	127.3	32	203.5	45	189.9
7	85.4	20	131.8	33	210.7	46	196.6
8	88.5	21	136.5	34	218.1	47	199.5
9	91.5	22	141.3	35	225.7	48	206.5
10	94.8	23	146.2	36	233.6	49	229.1
11	97.4	24	151.4	37	241.8	50	254.1
12	100.0	25	156.7	38	250.3		
13	103.5	26	162.2	39	69.3		

DCS Code List

CDCSS Number	Octal Code	CDCSS Number	Octal Code	CDCSS Number	Octal Code	CDCSS Number	Octal Code
1	023	27	165	53	413	79	731
2	025	28	172	54	423	80	732
3	026	29	174	55	431	81	734
4	031	30	205	56	432	82	743
5	032	31	223	57	445	83	754
6	043	32	226	58	464	84	036
7	047	33	243	59	465	85	053
8	051	34	244	60	466	86	122
9	054	35	245	61	503	87	145
10	065	36	251	62	506	88	212
11	071	37	261	63	516	89	225
12	072	38	263	64	532	90	246
13	073	39	265	65	546	91	252
14	074	40	271	66	565	92	255
15	114	41	306	67	606	93	266
16	115	42	311	68	612	94	274
17	116	43	315	69	624	95	325
18	125	44	331	70	627	96	332
19	131	45	343	71	631	97	356
20	132	46	346	72	632	98	446
21	134	47	351	73	654	99	452
22	143	48	364	74	662	100	454
23	152	49	365	75	664	101	455
24	155	50	371	76	703	102	462
25	156	51	411	77	712	103	523
26	162	52	412	78	723	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.

This warranty does not apply to water damage, battery leak, abuse or misuse of unauthorized accessories, unauthorized service or modification or altered products. Accessories have a 90-day warranty from date of purchase, including any charge cables or batteries.

ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED AS SET FORTH HEREIN AND TO THE DURATION OF THE LIMITED WARRANTY, OTHERWISE THE REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. IN NO EVENT SHALL MIDLAND BE LIABLE, WHETHER IN CONTRACT OR TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE, GROSS NEGLIGENCE, BODILY INJURY, PROPERTY DAMAGE AND DEATH) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT OR ACCESSORY, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS OR ACCESSORIES TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

For Product Purchased in the USA contact:

support@midlandusa.com.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Note: The above warranty applies only to merchandise purchased in the United States of America or any of the territories or possessions thereof, or from a U.S. Military exchange.

To register your product for a warranty claim, please visit **<https://midlandusa.com/apps/product-registration>** and contact Customer Experience at **support@midlandusa.com** for any additional assistance.

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

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