MIDLAND®

X-TRA TALK

GXT-400 GMRS/FRS Radio with Weather Band Receiver

OWNER'S MANUAL

www.midlandradio.com

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Welcome to the world of Midland electronics

Congratulation on your purchase of a quality MIDLAND product. Your GXT-400 represents the state-of-the-art in high-tech engineering. Designed for General Mobile Radio Service operation, this compact package is big in performance. It is a quality piece of electronic equipment, skillfully constructed with the finest components. The circuitry is all solid-state and mounted on a rugged printed circuit board. Your GXT-400 is designed for reliable and trouble-free performance.

Features

- 22 GMRS/FRS Channel with 38 CTCSS Code
- VOX
- 3-selectable CALL Tone
- Weather (WX) Band Receiver
- Vibrate-Alert
- SCAN function
- MONITOR function
- Roger Beep Tone

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device does not cause harmful interference, and (2) this radio must accept any interference that may cause undesired operation.

To maintain compliance with FCC's RF exposure suidelines, for body-worn operation, this radio has been tested and meets the FCC RF exposure guidelines when used with Midland Radio Corp. accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines. (Tested with Headset Model: AVP-1)

IMPORTANT NOTICE, FCC LICENCE REQUIRED

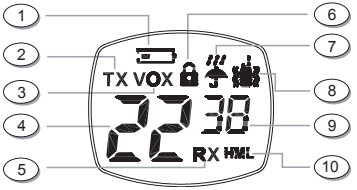
The GXT-400 operate on GMRS (General Mobile Radio Service) frequencies which require an FCC (Federal Communications Commission) license.
Information on how to apply for a license is included in the owner's manual. A user must be licensed prior to operating on channels 1 - 7 or 15 - 22, which comprise the GMRS channels of the GXT-400. Serious penalties could result for unlicensed use of GMRS channels, in violation of FCC rules, as stipulated in the Communications Act's Sections 501 and 502 (amended).
Licensed users will be issued a call sign by the FCC which should be used for station identification when operating the GXT-400. GMRS users should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other GMRS users, and being prudent with the length of their transmission time.
Questions regarding the license application should be directed to the FCC at 1-886-CALL FCC. Additional information is available on the FCC's web-site at www.fcc.gov/wtb/prs/genmbl.html

Exposure To Radio Frequency Energy

Your Midland radio is designed to comply with the following national and international standards and guidelines regarding exposure of human being 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 & Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineer (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

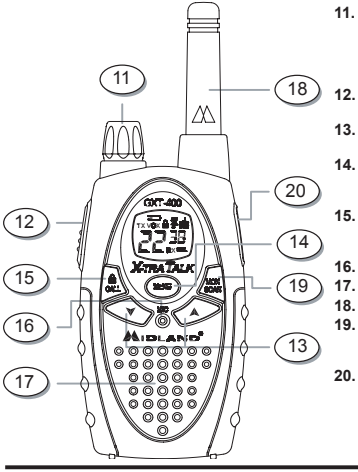
To control your exposure and ensure compliance with the general population or uncontrolled environment exposure limits, transmit no more than 50% of the time. The radio generates measurable RF energy exposure only when transmitting.

LCD DISPLAY



1. **LOW BATTERY ICON** – Indicates the battery level is low.
2. **TRANSMIT (TX) ICON** – Indicates the unit is transmitting a signal.
3. **VOX** – Display during VOX Mode.
4. **CHANNEL NUMBER** – Changes from 1~22 on GMRS/FRS band and 1~10 on WX band.
5. **RECEIVE (RX) ICON** – Indicates unit is receiving a transmission.
6. **KEY LOCK ICON** – Indicates KEY LOCK mode.
7. **WX BAND ICON** – Indicates when the unit is in WX Band mode.
8. **VIBRATE-ALERT ICON** – Indicates when the Vibrate-Alert feature is on.
9. **CTCSS CODE** – Changes from oF~38 as selected by user .
10. **TRANSMIT (TX) POWER ICON** – Indicates TX Power setting.

CONTROLS

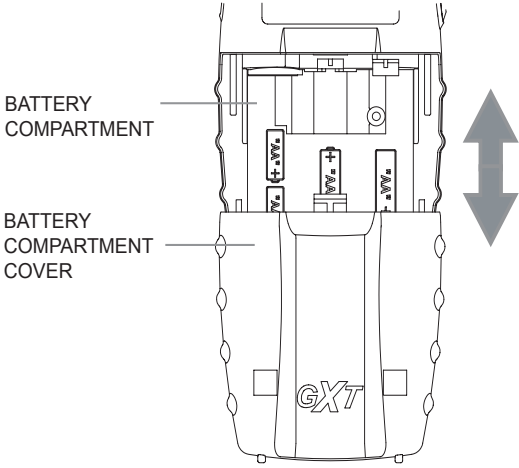


11. **POWER/VOLUME KNOB** – Turn clockwise to turn the Power On and increase the volume level. Turn counter-clockwise to decrease the volume level and turn the Power Off.
12. **PTT Button** – Press and hold to transmit voice communication.
13. **UP ▲ and DOWN ▼ Button** – Make adjustments in MENU mode.
14. **MENU Button** – Press to access Menu mode. Press and hold to go to WX Band Receiver mode .
15. **CALL/LOCK Button** – Press to send a CALL tone signal. Press and hold to set KEYLOCK On/Off.
16. **MIC** – Built-in microphone.
17. **SPEAKER** – Built-in speaker.
18. **ANTENNA.**
19. **MONITOR/SCAN Button** – Press to enter SCAN mode. Press and hold to enter MONITOR mode
20. **EXTERNAL SPEAKER/MIC JACK.**

BATTERY INSTALLATION

Your GXT-400 radio operates with either 4 AA Alkaline Batteries or optional NiMH Battery Pack. The belt clip should be removed (Page 13) to ease installation or removal. To install the batteries:

1. With the back of the radio facing you, remove the Battery Cover by sliding it down from the unit.
2. Insert 4 AA batteries observing the polarity as shown. Installing the batteries incorrectly will prevent the unit from operating or can damage the unit.
3. Return the Battery Cover by sliding it up from the unit.



CHARGING THE BATTERIES

Your GXT-400 is equipped to allow using a rechargeable NiMH battery pack (not included) which can be recharged by an A/C Charger/Adaptor (not included) through the **MIC** [20] Jack of the radio, or using a Desktop Charger (not included). Batteries must be charged when the low battery icon flashes on the display.
Initial charge time is 24 hours with a charge time of 8-12 hours thereafter. For maximum battery life, we recommend charging the batteries when the low battery indicator comes on.
Remove the radios from the charger when the charge time expires.
Accessories : XX-XXXXX - Wall adapter for charging through the **MIC**[20] Jack.
18CVP3 - Desktop Charger with 2 Rechageable Battery Packs

To charge through the MIC Jack :
- Connect the AC Adaptor/Charger into an A/C Wall Outlet
- Insert the Adaptor/Charger jack into the MIC [20] Jack of the radio found at the side of the unit.

To charge through a Desktop Charger:
- Connect the AC Adaptor into an A/C Wall outlet
- Insert the Adaptor Jack into the Desktop charger jack
- Place the units into the Desktop Charger slot and note that the LED indicator of the Desktop Charger will light up to indicate charging function.

Note :
1. Only use batteries indicated in the manual, or our NiMH battery pack.
2. Do not attempt to charge Alkaline batteries or any batteries or battery packs other than the one indicated in the manual. This may cause leakage and damage the unit.
3. For long term storage of the radio, turn the unit OFF and remove the batteries from the radio.

OPERATIONS

POWER ON/OFF AND VOLUME :

Rotate the **POWER/VOLUME** [11] knob clockwise to turn the radio on and increase the volume level. Rotate it counter-clockwise to reduce the volume level and turn the radio off (after you hear the click sound). During Power On, the radio will beep 3 times with different tones, the LCD will display a "**self-test**" message for 1 second, the LCD Display will indicate the last channel selected.

TRANSMISSION AND RECEPTION :

To communicate, all radios in your group must be set to the same channel and CTCSS Code.

- For maximum clarity, hold the radio 2 to 3 inches from your mouth.
- Press and hold the **PTT** [12] button and speak in a normal voice into the microphone. The **TX** [2] icon will appear continuously on the LCD Display when transmitting.
- To receive a signal, release the **PTT** [12] button. The **RX** [5] icon will appear on the display when your radio is receiving a transmission.

Note : The maximum communication range will vary depending on the terrain and environment.

MONITOR FUNCTION :

Pressing and holding the **MONITOR** [19] button for 1 second will let you hear noise so you can adjust the volume level of the radio when not receiving a signal. This should be used to check activity on current channel before transmitting. Repeat the same procedure to exit.

SCAN FUNCTION :

Your GXT-400 can scan all of the 22 channel to observe for any activity. To enter, quickly press the **SCAN** [19] button. Repeat the same procedure to exit.

Your radio will rapidly scan each of the 22 channels and stop on any active channel for 5 seconds before resuming scan.

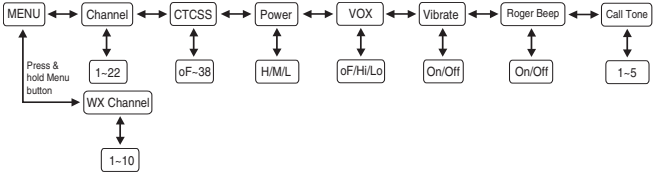
When you press the **PTT** [12] button to transmit on an active channel, the scanning function will stop and remain on the active channel. To resume scanning, quickly press the **SCAN** button [19].

CALL TONE FUNCTION :
Your GXT-400 can transmit a call tone for a fixed length of time. To send a call tone, press the **CALL** [15] button. The **TX** [2] icon will appear during transmitting a call tone and a tone can be heard on the speaker for confirmation.

KEYPAD LOCK :
To avoid accidentally changing the radio operation, press the **LOCK** [15] button for 4 seconds . The **KEY LOCK** [6] icon will appear on the display. **PTT** [12] and **CALL** [15] will still be active. Repeat the same procedure to unlock the keypad.

DISPLAY ILLUMINATION :
During Power on, the display illumination will activate for approx. 7 seconds. The display illumination can also be activated when the **MENU** [14] button is pressed.

USER INTERFACE



CHANNEL SELECTION (GMRS/FRS BAND):
Press the **MENU** [14] button once, and then the ▼/▲ [13] buttons to select one of the 22 GMRS/FRS channels. To confirm the selection, press the **PTT** [12] button or wait for 5 seconds roughly.

CTCSS SUB-TONE SETTING :

Your GXT-400 has 38 **CTCSS** codes available. The selected **CTCSS** code may be different for each channel. To select a **CTCSS** code for the current channel press the **MENU** [14] button twice, and then the ▼/▲ [13] buttons to select one of the 22 channels. To confirm the selection, press the **PTT** [12] button or wait for 5 seconds roughly

Note : Selecting a CTCSS code of **"oF"** will disable the the CTCSS feature. To communicate between two GXT-400 radios , both the channel and CTCSS code selections must be the same.

TRANSMIT (TX) POWER SELECTION :

Your GXT-400 has 3 transmit power levels. To select the power level on channels 1~7 and 15~22, press the **MENU** [14] button thee times, a "**Pr**" icon will appear on the display. Then press the ▼/▲[13] buttons to select among the 3 **TRANSMIT POWER** [10] icon **(H/M/L)**. To confirm, press the **PTT** [12] button or wait for 5 seconds roughly.

Note : There is no transmit power selection on Channel 8~14.

VOX (Hands-free Transmission) FUNCTION:

Your GXT-400 has 3 VOX level selection ***(oF/Lo/Hi)***.

*To activate the **VOX** function*, press the **MENU** [14] button four times. The display shows "**VOX**" blinking while on the right of the **CHANNEL NUMBER** [4] display, an "***oF***" icon appears. Select "***Lo***" or "***Hi***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation. The VOX functionwill be more sensitive on the *"**Hi**"* setting than in the *"**Lo**"* setting.

To deactivate the VOX function, press the **MENU** [14] button four times. The display shows "**VOX**" blinking while on the right of the **CHANNEL NUMBER** [4] display, an "***on***" icon appears. Select "***oF***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation.

VIBRATE-ALERT FUNCTION :

Your GXT-400 is equipped with a **VIBRATE-ALERT** function for silent operation of the radio. The radio will vibrate when receiving a call tone transmission instead of emitting a call tone sound.

*To activate the **VIBRATE-ALERT** mode*, press the **MENU** [14] button five times, the display will show the **VIBRATE-ALERT** [8] icon blinking while on the right of the **CHANNEL NUMBER** [4] display, an "***oF***" icon appears. Select "***on***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation. The **VIBRATE-ALERT** [8] icon will remain on the display.

*To de-activate the **VIBRATE-ALERT** mode*, press the **MENU** [14] button five times, the display will show the **VIBRATE-ALERT** [8] icon blinking while on the right of the **CHANNEL NUMBER** [4] display, an "***on***" icon appears. Select "***oF***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation. The **VIBRATE-ALERT** [8] icon will disappear on the display.

ROGER BEEP (end of transmission) TONE :

When the **PTT** [12] button is released, the radio will beep to confirm to other users that your transmission has finished.

*To activate the **ROGER BEEP** tone* , press the **MENU** [14] button six times, the display will show an "***rb***" icon while on the right of the "***rb***" [4] display, an "***oF***" icon appears. Select "***on***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation.

*To de-activate the **ROGER BEEP** tone* , press the **MENU** [14] button six times, the display will show an "***rb***" icon while on the right of the "***rb***" [4] display, an "***on***" icon appears. Select "***oF***" by pressing the ▼/▲ [13] buttons and push the **PTT**[12] key, or wait for 5 seconds for confirmation.

CALL TONE SELECTION :

Your GXT-400 has 5 user-selectable **CALL TONE**. To select, press the **MENU** [14] button seven times, a "***CA***" icon will appear on the display while on the right of the "***CA***" icon the current **CALL TONE** setting is displayed. Then press the ▼/▲ [13] buttons to select among the 5 **CALL TONE** selections, the radio will emit the corresponding tone for each selection. To confirm, press the **PTT** [12] button or wait for 5 seconds roughly.

WEATHER (WX) BAND RECEIVER FUNCTION :

Your GXT-400 has a **WEATHER (WX) BAND RECEIVER** function, to enable user to receive Weather alert/report from designated **NOAA** stations.

*To activate the **WEATHER (WX) RECEIVER** function*, press and hold the **MENU** [14] button around 3 seconds. The current **WX CHANNEL** [4] and the **WX BAND** [7] icon will appear on the display.

Then press the ▼/▲ [13] buttons to select one of the ten **WX BAND** channel. To confirm, press the **PTT** [12] button or wait for 5 seconds roughly.

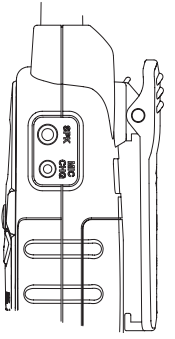
*To de-activate the **WEATHER (WX) RECEIVER** function*, press and hold the **MENU** [14] button around 3 seconds. The current GMRS/FRS radio setting will be displayed and the **WX BAND** icon will disappear.

EXTERNAL SPEAKER/MICROPHONE JACK :

Your GXT-400 can be used with an optional external speaker/microphone or headset, freeing your hands for other tasks. To use an optional / speaker / microphone or headset:

· Insert the plug(s) into the **SPK/MIC** [20] jacks

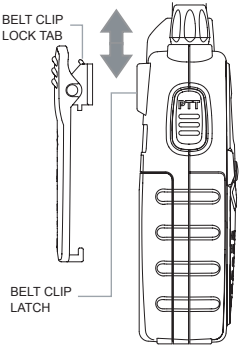
· Place the earbud into your ear, and adjust the mic into your desired position.



INSTALLING THE BELT CLIP :

To install the **BELT CLIP**, slide the clip down into the slot on the back of the radio until the **BELT CLIP LATCH** clicks.

To remove the **BELT CLIP**, press the **LOCK TAB** down , then gently pull the belt clip up toward the top of the radio.



PROBLEM	SOLUTION
No Power	- Check battery installation and/or replace batteries
Cannot Receive Messages	- Confirm the radios have the same channel settings. - Make sure the you are with in range of the other transceivers. - Buildings and other may interfere with your communication.
Radio is not responding to button presses	- Make sure key lock is not on. See "Keypad Lock" (Page 9). - Radio might need to be reset. Turn radio off then on. - Ensure accessory microphone is set properly
Display is dim	- Recharge or replace batteries.
Charger not functioning	- Contacts on the bottom of the radio may require cleaning. - Ensure the outlet the charger is plugged into is functioning properly. - Check that the batteries are installed in the radio properly.

If you have a problem which you believe requires service, please call first and speak with a service technician. Many problems can be remedied over the phone without returning the unit for service.

USE AND CARE :

1. **Do not** use alcohol or cleaning solutions to clean the radio.
2. **Do not** immerse the radio in water.
3. Use a soft damp cloth to clean the radio
4. Dry the radio with dry lint-free cloth should it get wet.
5. Turn off the radio and remove the batteries during long-term storage.

SPECIFICATIONS

Channels	22 GMRS/FRS Channels +38 CTCSS Codes 10 Weather (WX) Band Channels
Operating Frequency	UHF 462.5500 ~ 467.7125 MHz
Power Source	4 AA Alkaline or Rechargeable Ni-MH Batteries
Output Power	2W ERP Max.
Range	About 7 Miles
Battery Life	Varies per user

GMRS/FRS FREQUENCY CHART (MHz)

CH. No	CH. Freq.	CH. No	CH. Freq.	CH. No	CH. Freq.
1	462.5625	**9**	467.5875	**17**	462.6000
2	462.5875	**10**	467.6125	**18**	462.6250
3	462.6125	**11**	467.6375	**19**	462.6500
4	462.6375	**12**	467.6625	**20**	462.6750
5	462.6625	**13**	467.6875	**21**	462.7000
6	462.6875	**14**	467.7125	**22**	462.7250
7	462.7125	**15**	462.5500		
8	467.5625	**16**	462.5750		

WEATHER (WX) RECEIVER FREQUENCY CHART (MHz)

CH. No	CH. Freq.	CH. No	CH. Freq.
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

*** Channel 8,9 and 10 is for Canadian Marine Frequency

CTCSS CODES FREQUENCY CHART (Hz)

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

LIMITED WARRANTY

Midland Radio Corporation will repair or replace, at its option without charge, any Midland FRS/GMRS transceiver 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 or abuse.

This warranty does not include any carrying cases, earphones, or antennas, which may be a part of or included with the warranted product, or the cost of labor for removal or re-installation of the product in a vehicle or other mounting.
Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, along with proof of purchase to:

Midland Radio Corporation
Warranty Service Department
1120 Clay Street
North Kansas City, Missouri 64116

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.

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Note: Features & Specifications are subject to Change without notice. MIDLAND is not responsible for unintentional errors or omissions on its packaging.