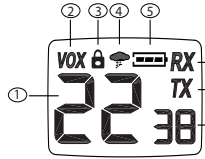


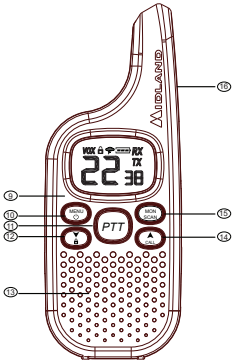
QUICK START GUIDE

1. Install 4 AAA Batteries
2. To turn the radio on, press and hold the MENU/POWER Button for 3 seconds
3. To select a channel, press and release the MENU button once, then press the UP/CALL or DOWN/LOCK buttons to select 1 of the 22 FRS channels
 - * Press the PTT button to exit the MENU
4. Press and hold the PTT button to talk

LCD DISPLAY

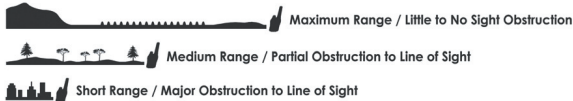


1. **CHANNEL NUMBER** – Changes from 1~22 on FRS band (1~10 on Weather Band).
2. **VOX ICON** – Indicates when VOX mode is active.
3. **KEY LOCK ICON** – Indicates KEY LOCK mode is on.
4. **NOAA WEATHER (WX) BAND ICON** – Indicates when the radio is in Weather Band mode.
5. **BATTERY METER** – Indicates the battery level.
6. **RECEIVE (RX) ICON** – Indicates radio is receiving a transmission.
7. **TRANSMIT (TX) ICON** – Indicates radio is transmitting a signal.
8. **PRIVACY CODE** – Indicates Privacy Code selected by user (oF~38).
9. **MIC** – Built-in microphone.
10. **MENU/Power Button** – Press to enter the Menu mode. Press and hold to turn the radio on/off.
11. **PTT Button** – Press and hold to transmit voice communication.
12. **DOWN/LOCK Button** – Press to adjust the volume, or to scroll through the menu. Press and hold to lock the keypad.
13. **SPEAKER** – Built-in speaker.
14. **UP/CALL Button** – Press to adjust the volume, or to scroll through the menu. Press and hold to send a call tone.
15. **MONITOR/SCAN Button** – Press to enter SCAN mode. Press and hold to enter MONITOR mode.
16. **ANTENNA**



ABOUT RANGE

Your radios are designed to give you maximum range under optimum conditions.



Optimum Conditions are:

- * Over water
- * Open rural areas without obstructions
- * Flat areas where you can see the other person

To ensure you get maximum range:

- * Be sure to use fresh batteries - low batteries will cause reduced range.

MONITOR

Pressing and holding the MONITOR/SCAN button for 3 seconds will let you hear noise so you can adjust the volume level of the radio when not receiving a signal. This could also be used to check any activity on your current channel before transmitting. Press and hold the MONITOR/SCAN button for 3 seconds again to get out of MONITOR mode.

CALL ALERT

Your radio can transmit a call alert. To send a call alert, press the UP/CALL button for 3 seconds. The TX icon will appear while transmitting a call alert and a tone can be heard on the speaker for confirmation.

KEYPAD LOCK

To avoid accidentally changing the radio setting, press the DOWN/LOCK button for 3 seconds. The icon will appear on the display. The PTT and CALL buttons will still be active. Repeat the same procedure to unlock the keypad.

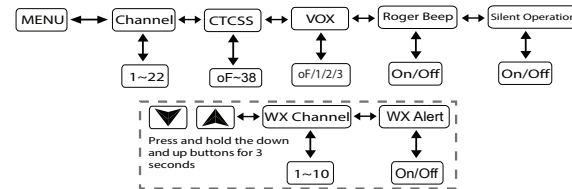
SCAN

Your radio can scan all 22 channels for activity. To enter scan mode press and release the MONITOR/SCAN button. Repeat the same procedure to exit. Your radio will rapidly scan each of the 22 channels and stop on any active channel for 6 seconds before resuming scan. When you press the PTT button to transmit on an active channel, the scanning function will stop and remain on the active channel. To resume scanning, press and release the MONITOR/SCAN button.

* If the UP/CALL button or the DOWN/LOCK button are pressed while the radio is scanning, the scan direction will change to increasing or decreasing depending on which button was pressed.

* If a CTCSS code is currently set for a channel, that specific channel will be scanned with the CTCSS code that was set

T20 SERIES MENU Quick Reference Chart



CHANNEL SELECTION (FRS BAND)

Press the MENU button once, and then press the UP/CALL or DOWN/LOCK buttons to select one of the 22 FRS channels. To confirm the selection, press the PTT button or press the MENU button again to move to the next feature setting.

SETTING PRIVACY CODES

Your radio has 38 Privacy Codes available. The selected Privacy Code may be different for each channel. To select a Privacy Code for the current channel press the MENU button twice, and then press the UP/CALL or DOWN/LOCK buttons to select one of the 38 CTCSS Codes. The Privacy Code icon on the display will indicate the CTCSS code that was selected. To confirm the selection, press the PTT button or press the MENU button again to move to the next feature setting.

Note: Selecting a Privacy Code of "oF" will disable the Privacy feature. To communicate between two radios, all radios in your group must be set to the same channel and/or Privacy Code selections.

VOX

To set VOX, press the MENU button until the display shows "VOX." A flashing icon will appear to the right of the CHANNEL NUMBER. Select "oF/1~3" by pressing the UP/CALL or DOWN/LOCK buttons, with 1 being the most sensitive. Push the PTT key, or press the MENU button again to move to the next feature setting.

ROGER BEEP (end of transmission) TONE

When the PTT button is released, the radio will beep to confirm to other users that your transmission has finished. To set the ROGER BEEP tone, press the MENU button until the display shows an "rb" icon. Select "on" or "oF" by pressing the UP/CALL or DOWN/LOCK buttons. Push the PTT key to exit, or press the MENU button to move to the next feature setting.

SILENT OPERATION

Your radio has a SILENT OPERATION mode. In this mode, all "beeps" and "tones" are disabled. To set SILENT OPERATION, press the MENU button until the display shows a "bp" icon. Select "on" or "oF" by pressing the UP/CALL or DOWN/LOCK buttons. Push the PTT key to exit, or press the MENU button to move to the next feature setting.

NOAA WEATHER RADIO

Your radio has a NOAA WEATHER RADIO function to enable the user to receive weather reports from designated NOAA stations. To turn the NOAA WEATHER RADIO on, press and hold the DOWN/LOCK and the UP/CALL buttons for 3 seconds while in FRS mode. The radio will go to the Weather Band mode. To set the channel in Weather Mode, press the MENU button, the display will show the current WX Band channel. While in WX Band mode press the UP/CALL or DOWN/LOCK buttons to select one of the 10 NOAA WEATHER (WX) BAND channels. To confirm, press the PTT button or press the MENU button to move to the next feature setting. To turn the NOAA WEATHER RADIO off, press the PTT button. The current FRS radio setting will be displayed and the Weather icon will go off, unless alert is set.

NOAA WEATHER ALERT

Your radio has a NOAA WEATHER ALERT function, to enable you to automatically receive weather alerts from designated NOAA stations. To turn the NOAA WEATHER (WX) ALERT on while in Weather Radio mode, press the MENU button twice while in Weather Radio mode. The display shows "AL," while on the right an "oF" icon appears blinking. Select "on" by pressing the UP/CALL or DOWN/LOCK buttons. To confirm, press the PTT button or press MENU button. The radio will return to Weather Radio mode and the icon will continue blinking. If the radio receives a WX ALERT signal from a designated NOAA station while in FRS Radio mode, the radio will beep for 20 seconds while the display will automatically switch to Weather Radio mode. To turn the NOAA WEATHER (WX) ALERT off, press the MENU button twice while in Weather Radio mode. The display shows "AL," while on the right an "on" icon appears blinking. Select "oF" by pressing the UP/CALL or DOWN/LOCK buttons. To confirm, press the PTT button or press the MENU button.

BATTERY LEVEL INDICATOR

Your radio has a BATTERY LEVEL METER that shows the battery power level. The greater the number of bars visible, the stronger the battery level. When the battery level is low, the Battery Shell icon will flash in the display indicating your batteries should be replaced.

o 3 Bars = Full Battery	
o 2 Bars = 2/3 Battery	
o 1 Bar = 1/3 Battery	
o No bar = battery low	

POWER ON/OFF AND VOLUME

Press the POWER/MENU button for at least 3 seconds to turn the radio on/off. During Power On, the radio will beep once, the LCD will display all icons for 1 second and then the LCD display will indicate the last channel selected. To increase/decrease the volume level, press the up or down arrow buttons during RX or STANDBY mode

RESTORING YOUR RADIO TO THE ORIGINAL SETTING

To reset your radio to the original (default) setting, turn on the radio while pressing and holding the PTT button. The LCD display will reset to standby mode on channel 1 with no Privacy Code, VOX Off, Roger Beep On, and Key Beep On.

TRANSMITTING AND RECEIVING A CALL

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

1. For maximum clarity, hold the radio at least 1 inch (2.5 cm) from your mouth.
2. Press and hold the PTT button and speak in a normal voice into the microphone. The TX icon will appear continuously on the LCD display while transmitting.
3. To receive a call, release the PTT button. The RX icon will appear on the display when your radio is receiving a transmission.

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 guidelines, 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.

FEATURES

- 22 FRS Channels
- 38 Privacy Codes (CTCSS)
- VOX, Voice Activated Microphone
- Call Alert
- NOAA Weather Radio
- NOAA Weather Alert
- Scan Function
- Monitor Function
- Roger Beep Tone
- Silent Operation
- Key Pad Lock
- Battery Meter / Battery Low Indicator

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 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 & Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic 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, transmit no more than 50% of the time. The radio generates measurable RF energy exposure only when transmitting.

Body-Worn Operation

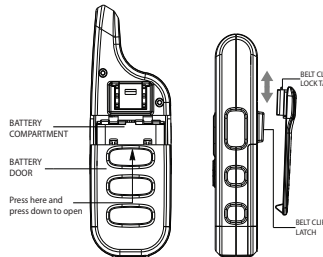
If you wear the radio on your body when transmitting always use Midland supplied or approved belt clip, holster, case, or body harness for this product. Use of any accessories not supplied or approved by Midland may exceed FCC/Health Canada RF exposure guidelines. If you do not use any accessories supplied or approved by Midland, **ensure the radio and its antenna are at least 1 inch (2.5cm) from your body when transmitting.**

BATTERY INSTALLATION

Your radio operates with 4 AAA alkaline batteries. The belt clip should be removed (see below) to ease installation or removal of the batteries.

To install the batteries:

1. With the back of the radio facing you, remove the belt clip (see diagram below) then remove the Battery Cover by pressing down on the top center and sliding it down from the radio.
2. Insert 4 AAA batteries observing the polarity as shown. Installing the batteries incorrectly will prevent the unit from operating or may damage the unit.
3. Return the Battery Cover by sliding it up on the radio. Replace the belt clip, making sure it locks into place.



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, pull the LOCK TAB away from the radio, then gently pull the belt clip up toward the top of the radio.

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
No Power	- Check battery installation and/or replace batteries.
Cannot Receive Messages	- Confirm the radios have the same channel settings. - Make sure that you are within range of the other transceivers. - Buildings and other structures may interfere with your communication.
Radio is not responding to button presses	- Make sure key lock is not on - Radio might need to be reset. Turn radio off. Turn the Radio on while pressing the PTT button.
Display is dim	- Replace the batteries.

USE AND CARE

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

SPECIFICATIONS

Channels	22 FRS Channels +38 Privacy Codes
Operating Frequency	10 NOAA Weather (WX) Band Channels
Power Source	UHF 462.5500 ~ 467.7125 MHz 4 AAA Alkaline batteries

FRS FREQUENCY CHART (MHz)

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

* Channels 8~14 are low-power FRS channels

NOAA WEATHER (WX) RADIO 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

* Channels 8, 9 and 10 are designated Canadian Marine Frequencies

PRIVACY CODES FREQUENCY CHART (Hz)

Code	Freq.	Code	Freq.	Code	Freq.	Code	Freq.
1	67.0	9	91.5	17	118.8	25	156.7
2	71.9	10	94.8	18	123.0	26	162.2
3	74.4	11	97.4	19	127.3	27	167.9
4	77.0	12	100.0	20	131.8	28	173.8
5	79.7	13	103.5	21	136.5	29	179.9
6	82.5	14	107.2	22	141.3	30	186.2
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 (United States and Canada)

Subject to the exclusions set forth below, Midland Radio Corporation will repair or replace, at its option without charge, any Midland FRS transceiver which fails due to a defect in material or workmanship within One Year 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 chargers, microphones, and cables. This warranty does not include the cost of labor for removal or re-installation of the product in a vehicle or other mounting.

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:

Performance of any obligation under this warranty may be obtained by returning the warranted product, prepaid freight, along with proof of purchase to:

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

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.

For Product Purchased in Canada:

Performance of any obligation under this warranty may be obtained by returning the warranted product, along with proof of purchase, to your place of purchase in Canada. This warranty gives you specified legal rights. Additional warranty rights may be provided by law in some areas within Canada.

IMPORTANT: Changes or modifications to this unit not expressly approved by MIDLAND RADIO CORP. could void your right to operate this unit. Your radio is set up to transmit a regulated signal on an assigned frequency. It is against the law to alter or adjust the settings inside the COMMUNICATOR to exceed those limitations. Any adjustment to your radio must be made by qualified technicians.

IMPORTANT: This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

If you have a problem which you believe requires service, please call first and speak with a service technician at 816-241-8500. Many problems can be remedied over the phone without returning the unit for service.

IMPORTANT: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement.

**For a PDF of the T20 Series Manual visit
www.midlandusa.com**