TYPE OF EXHIBIT: USER MANUAL

FCC PART: 2.1033 (c)

MANUFACTURER: RITRON, INC.
505 West Carmel Drive
Carmel, IN 46032

MODEL: JMX-141

TYPE OF UNIT: VHF-FM Handheld Transceiver

FCC ID: AIERIT14-141

DATE: July 5, 2000

Included is an excerpt from a draft of the Maintenance and Operating Manual for RITRON Model JMX-141 VHF-FM Handheld Transceiver.

Specifically, this manual includes a technical description of the JMX-141 sufficient to establish compliance with the technical standards of the applicable rule part(s).

This includes, but is not limited to, the following items required under FCC Part 2.1033 (c):

(2)   FCC Identifier.
(3)   A copy of the installation and operating instructions.
(4)   Type of emission.
(5)   Frequency range.
(6)   Range of operating power.
(7)   Maximum power rating.

JMX-141 SPECIFICATIONS

GENERAL	

FCC ID:	AIERIT14-141
FCC Rule Parts:	22, 74, 80, 90
Frequency Range:	148-161 or 161-174 MHz
Max. Freq. Separation:	13 MHz
RF Channels:	Conventional: 4 Channels, Independent TX/RX frequencies.
Synthesizer Step Size:	5 KHz
Frequency Stability:	+/-2.5 PPM (-30 to +60 C) TX/RX
Tone/Code Signaling:	CTCSS (Quiet Call)
Power Supply:	+7.5 VDC, 700 mAH rechargeable NiCd battery pack standard +7.5 VDC, 1500 mAH rechargeable MiMH battery pack optional

Battery Drain:
Standby: 75 mA
Sleep: 25 mA
Avg. Standby with Power Saver: 45 mA
Receive: 150 mA
Transmit: 600 mA @ 1.4 Watt with 7.2 VDC battery

Battery Life:	**Standard battery (700 mAH) @ 90/5/5 Duty Cycle** 9 Hrs, Battery Saver On **High capacity battery (1500 mAH) @ 90/5/5 Duty Cycle** 18 Hrs, Battery Saver On
Dimensions:	4.75"H x 2.2"W x 1.43"D
Weight:	11.5 oz. with battery pack
Enclosure Material:	Lexan Polycarbonate
Environmental:	Splash resistant and shock and vibration per RITRON Drop Test (6 ft. drop onto concrete on all six sides)
Antenna Fitting:	1/4" - 32 x 1/4" threaded
External RF Test Jack:	Antenna connector with RITRON 141-SRVBD test device

JMX-141 SPECIFICATIONS

GENERAL

Earphone Jack: 3.5 mm, disconnects the internal speaker for external earphone, speaker / microphone, or headset. Also provides cable connection for PC programming.

Microphone/PTT/Chg Jack: 2.5 mm, for external speaker/microphone, headset or RITRON model BC-A wall charger

Push Button Controls:
On/Volume Up
Volume Down/Off
PTT
Channel

Speaker Beep Indicators:

On/Volume UP — Multiple beeps indicating radio channel when radio is turned on, followed by increasing audio to adjust volume.

Volume Down/Off — Decreasing audio to adjust volume, with single tone when unit is turned off.

Both Volume Buttons — Alternates between Tone Squelch (single beep) and Carrier Squelch (two beeps). If both buttons are held down until the radio beeps repeatedly, squelch will be disabled.

Channel — Number of beeps indicates channel.

RECEIVER Specifications

	Wide band	Narrow band
Modulation Acceptance:	+/- 7.0 KHz	+/- 3.75 KHz
Sensitivity (12 dB SINAD):	0.22 µV (.17 typical)	0.22 uV (.18 typical)
Adjacent Channel (EIA):	-60 dB (-70 typical)	-50 dB (-60 typical)
Spurious Rejection:	-60 dB	-60 dB
Image Rejection (EIA):	-60 dB	-60 dB
Intermodulation (EIA):	-56 dB	-57 dB

Noise Squelch Sensitivity: Manually adjustable, factory set for 12 dB SINAD

Frequency Response: 300 - 3000 Hz, de-emphasized

Audio Output 1 Watt into 8 Ω, with less than 5 % THD @ the earphone jack

Receiving System: Dual conversion superheterodyne

I.F. System: 1st - 43.65 MHz   2nd - 450 KHz

L.O. Injection: **High** side

TRANSMITTER

RF Power Output: 1 Watts minimum @ +7.2 VDC
1.4 Watts typical @ 7.2 VDC

	<u>Wide Mode</u>	<u>Narrow Mode</u>
Emission Designator:	20K0F3E	11K25F3E
Deviation:	+/- 5.00 KHz	+/- 2.50 KHz
FM Hum and Noise:	-50 dB	-44 dB
Audio Distortion:	< 8 %	< 6 %
Spurious and Harmonics:	-50 dBc	
Audio Response:	Meets FCC and EIA requirements	
Time-out Timer:	60 seconds	

GENERAL

RITRON's JMX_141 handheld is a small, programmable two-way radio, designed to operate over one of two sub-bands. The low split covers 148-161 MHz and the high covers 161-174 MHz.

This handheld features push-button operating controls, with the Push-To-Talk and Channel buttons on one side of the radio. The On / Volume Up and Volume Down / Off, volume and monitor controls are on top.

Each radio can be "dealer or factory" programmed to contain a unique set of operating frequencies and options. Separate RX and TX Quiet Call (CTCSS) tones can be programmed per channel. Transmitter deviation can be programmed on a per channel basis.

Inspection

Each radio package should include a radio, antenna, rechargeable battery pack, belt clip and any optional accessories ordered. Examine the equipment immediately after delivery and report any damages to your shipping company.

Model Identification

The JMX-141 model, serial number and FCC Identification are displayed on a label located on the back of the radio beneath the belt clip.

FCC REGULATIONS

Licensing

The FCC requires the radio owner to obtain a station license for his radios before using them to transmit, but does not require an operating license or permit.

The station licensee is responsible for ensuring that transmitter power; frequency and deviation are within the limits specified by the station license. The station licensee is also responsible for proper operation and maintenance of the radio equipment. This includes checking the transmitter frequency and deviation periodically, using appropriate methods.

Safety Standards

The FCC (with its action in General Docket 79-144, March 13, 1985) has adopted a safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated equipment. RITRON follows these safety standards, and recommends that you observe the following guidelines:

- DO NOT hold the radio such that the antenna is very close to or touching exposed parts of the body, especially the face or eyes, while transmitting. Keep the radio vertical, two to three inches away while talking into the microphone.

- DO NOT press the Push-To-Talk except when you intend to transmit.

- DO NOT operate radio equipment near electrical blasting caps or in an explosive atmosphere.

- DO NOT allow children to play with any radio equipment that contains a transmitting device.

- Repair of RITRON products should be performed only by RITRON authorized personnel.

BATTERY CARE

The handheld is powered by a rechargeable battery, which fits into the radio case (see FIG-1).

CHARGING

The battery pack can lose its charge during storage and shipment, and should be fully charged before the radio is used. Thereafter, the battery should be charged overnight after each day of use, to ensure peak radio performance for the next day. Using the cube charger (model BC-A), the battery should charge completely in 12 hours.

Note: A new battery must be cycled (charged and discharged) several times before it will reach its maximum charge capacity.

To charge the battery using a RITRON cube charger - plug the charger cord into the smaller of the two jacks on top of the radio. Then plug the cube into a 110 VAC outlet. The green lamp lights while the battery is charging, and should go off only when the cube is unplugged.

Two charger contacts, visible through the bottom of the radio case, allow the battery to be charged using an optional RITRON drop-in charger (model BCPS-FS). The battery pack may be charged inside or outside of the radio case.

To charge the battery using a drop-in charger (model BCPS-FS) - plug the drop-in charger into a 110 VAC outlet. Set the portable or battery into the charger. Each battery contact must rest on a charger contact pin.

Typically, a battery pack's service life is one year. To ensure maximum service life, follow these guidelines:

- Do not discharge a battery that is already "run down." If the battery cannot power your radio, recharge the battery.

- Do not overcharge a battery. The standard battery should not be left to charge continuously.

- Before storing a battery, charge it for 16 hours. Thereafter, charge the battery for 16 hours once every 30 days.

With daily use and recharging, a battery's service life is about one year. It is time to purchase a new battery:

1) When the radio's transmitter coverage decreases or does not work at all.

2) When the radio quits working after just a few hours of use, even with a full overnight charge.

3) When the battery is more than two years old. The date of manufacture is stamped on every battery. The first two digits indicate the year, the last two digits the week.

BATTERY CARE

BATTERY REPLACEMENT

To take the battery out of the radio, remove the battery door pictured in FIG-1. Use the pull-tab to remove the battery.

Slide the replacement battery into the radio case. Make sure the spring contacts are inserted between the battery and paper insulator. The contacts must not touch the radio PC board.
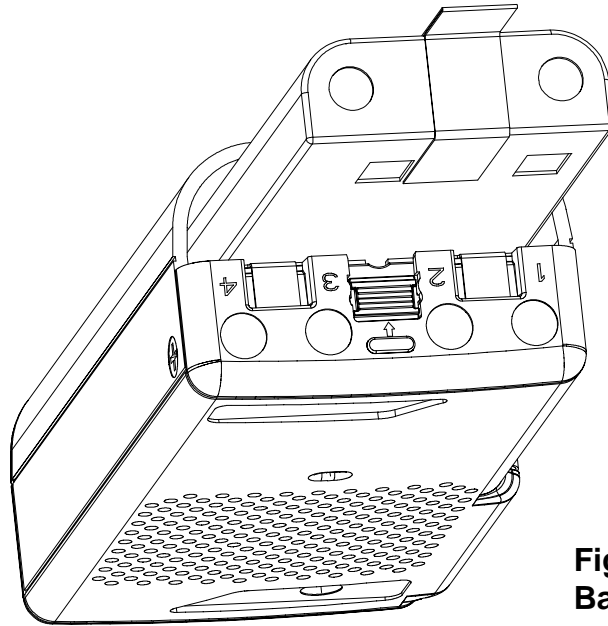
Fig. 1
Battery Replacement

PRECAUTIONS

- Use only RITRON-supplied chargers; other chargers might cause fire, explosion, or other damage to the radio.

- Do not "fast-charge" a brand new battery pack. Otherwise, the battery might be damaged.

- Once the battery has been charged fully using the normal rate, the fast rate may be used thereafter.

- Do not fast-charge a battery pack that is fully charged. This can shorten battery life.

- Do not charge or replace a battery in an explosive atmosphere. Contact sparking can ignite an explosion.

- Do not dispose of a battery in fire. An explosion might result.

- Do not charge the battery in temperatures colder than about 45°F. Electrolyte leakage can occur and ruin the battery.

- Charging in temperatures above approximately 95°F will not harm the battery, but can reduce its charge capacity.

DESCRIPTION OF CONTROLS AND CONNECTORS

Antenna
The flexible antenna radiates and receives radio signals. Before using the radio, be sure the antenna base is threaded fully into the radio's antenna bushing.

VHF and UHF antennas are not interchangeable. Use only the antenna type packaged with the radio. A VHF antenna is pictured in FIG-2. (The UHF antenna is smaller in diameter.)

On/Volume Up
This button switches on the radio, then increases the volume if you continue to press.

Off/Volume Down
This button decreases the volume, then shuts off the radio if you continue to press.

Channel Select
Pressing this button selects the next channel. When the maximum number of channels is reached and you press this button, the radio resets to channel 1.

Speaker
The speaker allows you to hear calls on your channel.

Push-To-Talk Button
The PTT activates the transmitter, and must be held down while you talk into the microphone. Release the PTT button to receive.

Microphone
The microphone converts your voice into electrical impulses, which are carried with your broadcast to receiving radios. Hold the radio about two inches away and talk into the microphone while transmitting. Shouting does not improve the listener's reception.

Audio Accessory Jack
This jack connects speaker audio to optional accessories, such as a remote speaker/microphone or an earphone. For accessories that have a two-plug connector, the smaller plug is inserted into the charge jack.

This jack is also used to program the radio using the optional PC programming kit.

Charge Jack
The battery may be charged through this jack using a standard RITRON wall socket charger cube.

This jack also connects microphone audio to the optional remote speaker/microphone.

Battery Access (Case Bottom)
The battery door on the case bottom may be removed to access the battery. (Refer to the battery section of this manual.)
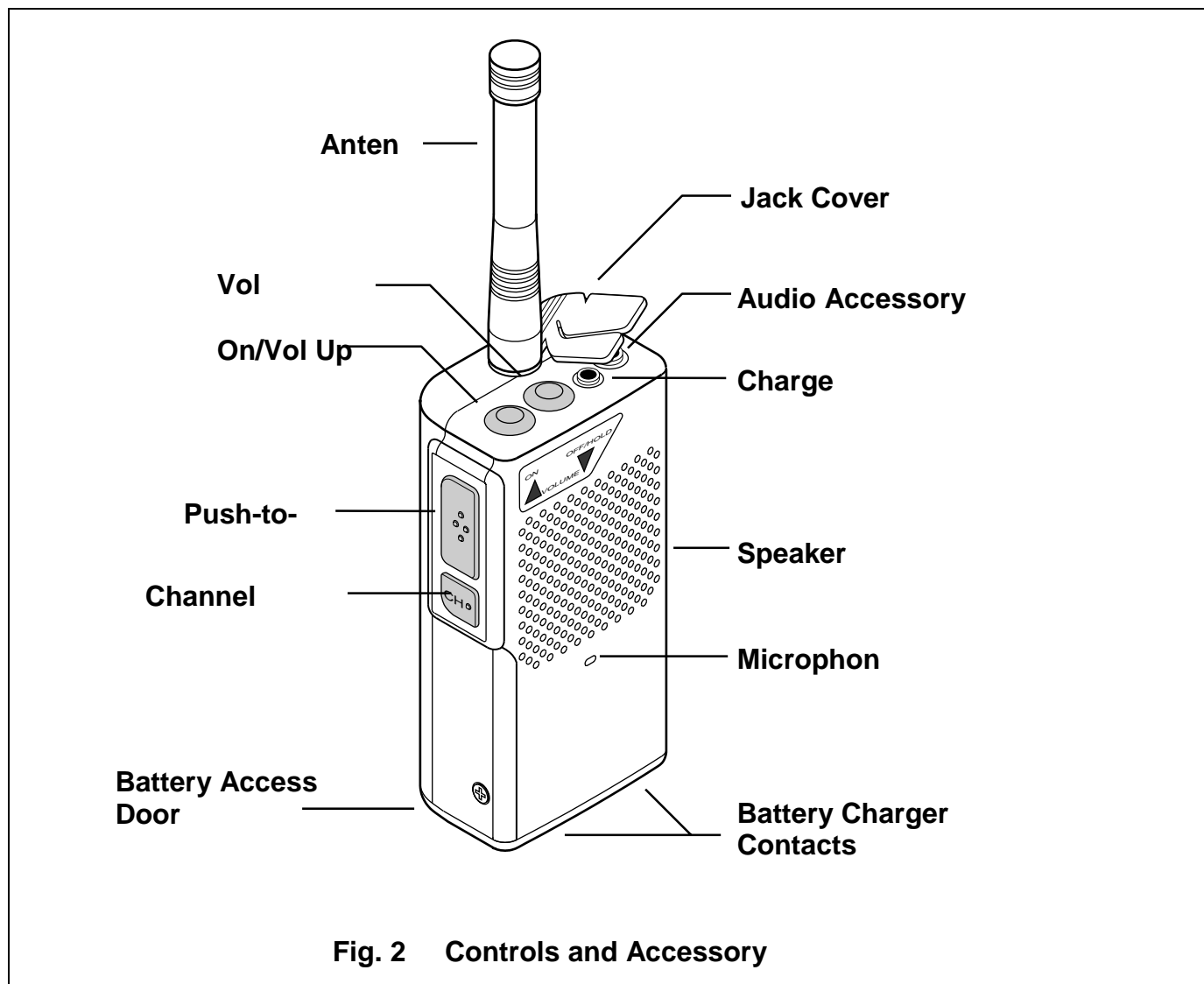
Drop-in Charger Contacts
Two charger contacts in the bottom of the JMX-141 radio case allow the battery pack to be charged using an optional RITRON drop-in charger (model BCPS-FS).

Jack Cover
This rubber cover seals out dust and moisture, etc. Snap the cover into the audio accessory and charge jack openings when the jacks are not being used.

DESCRIPTION OF CONTROLS AND CONNECTORS

Anten
Jack Cover
Vol
Audio Accessory
On/Vol Up
Charge
Push-to-
Speaker
Channel
Microphon
Battery Access Door
Battery Charger Contacts

Fig. 2   Controls and Accessory

Belt Clip Installation

If you are going to attach the belt clip to the handheld, follow these instructions:

1) The belt clip is fastened to the radio case back with the Philips head screw provided.   Use the screw included, since a longer screw might damage the radio's electronics.

    Do not use petroleum solvents of any kind on the radio. These can corrode the case.

2) Place the belt clip on top of the radio case back, with the screw hole in the aligned with the hole in the radio case.

3) Using the screw that came with this accessory, attach the clip to the radio.

OPERATION

On-off/Volume

<u>To switch on the radio</u> - press the on/volume up button.

<u>To adjust the volume</u> - press the volume up button until you reach the desired level. You should hear noise and any broadcasts on the channel.

<u>To turn off the radio</u> - press and hold the off/volume down button until a beep sounds.

<u>To determine whether the radio is on</u> - press the volume down button. If the radio is on, noise or activity on the channel is heard.

Receive

<u>To hear calls from other users</u> - adjust the volume as desired. The radio can receive broadcasts while the Push-To-Talk button is not being pressed. Whether or not you hear these broadcasts depends upon the squelch settings.

There are two types of squelch used in the JMX-141 portable. First is carrier squelch. This lets you hear all broadcasts on your channel strong enough for the radio to detect, and silences noise. Second is one of the selective signaling or "tone squelch" formats available on the JMX-141. This allows you to screen out "on-channel" broadcasts that do not carry the correct code programmed for the radio.

Note: It is possible that the beginning of a call might be missed while the radio is in battery saver mode. If this happens, ask the caller to repeat his message.

Monitor

<u>To monitor the channel</u> - press one of the volume control buttons. When you press the volume up or the volume down button, squelch turns off and all radio traffic on the channel (and noise) sounds in the speaker.

Selective Signaling Squelch

To activate tone squelch - simultaneously press both of the volume buttons. Hold for a second or two before releasing. When tone squelch is turned on, the handheld sounds one beep. When carrier squelch is on, the radio emits a "double beep."

Note: If you continue to hold down the volume buttons after the beep (or double beep), the radio will start beeping repeatedly. This means that squelch is turned off. Release the buttons. To restore squelch, press and hold both of the volume buttons until the radio sounds a beep or double beep.

Battery Saver

The handheld has a "battery saver" feature that conserves battery power. The battery saver constantly checks the radio's transmitter, receiver and controls for activity. If a number of seconds pass without the receiver detecting a call, and without the user operating a control, this feature removes power from most of the radio.

During this "off-time," any activity restores full power. Every few fractions of a second, the battery saver applies power to the receiver, checking for broadcasts. It is possible that the first part of an incoming call might go unheard before activity is detected and power restored. If this happens, the caller can repeat his message. Once "radio contact" is made, normal unhurried conversation can follow.

OPERATION

Transmit

To transmit - hold down the Push-To-Talk button and, with the radio a couple of inches away, talk into the microphone. Speak in a normal tone, since talking louder will not improve the listener's reception.

Channel Selection

To read out present channel **-** press and release the channel button. The radio will beep a number of times equal to the present channel number.

To change channels - press and release the channel button within one second after a previous press. The radio will beep a number of times equal to the new channel number. If the highest channel number is selected and you press the channel button, the radio will reset to channel 1. A one-channel radio will beep only once when you press the channel button.

WHAT THE RADIO TONES MEAN

The handheld responds to certain instructions by sounding a beep or series of tones. These tones can tell you whether the radio is working as you expect.

Error Tones in Receive Mode

Synthesizer Unlock – A beep every second indicates the radio frequency synthesizer is malfunctioning. Increment channels until you arrive back on channel. If beeping persists synthesizer is faulty, frequency is outside of authorized range or EE memory is corrupt. Turn off the radio and try again.
Low battery - If a beep occurs every minute then the battery is low. Recharge or replace the battery. The radio will receive with a low battery but may shut down during transmit.
Shut down – The radio will shut down when the battery voltage drops below a predetermined "dead battery" level to protect EE data.

Error Tones in Transmit Mode

Synthesizer Unlock – A beep every second while PTT is pressed indicates the radio frequency synthesizer is malfunctioning. If beeping persists synthesizer is faulty, frequency is outside of authorized range or EE memory is corrupt. Turn off the radio and try again.
Time-out-Timer alert – A rapid beeping occurs when 1 minute of transmission has elapsed. Transmission is terminated. Beeping will stop and the radio will return to receive mode when PTT is released.
Shut down – The radio will shut down when the battery voltage drops below a predetermined "dead battery" level.

Channel Select

When the channel button is pressed, the radio beeps a number of times equal to the channel number selected.

Tone Squelch

When you press and hold both Volume buttons at the same time, a single beep will sound to indicate that tone squelch is on. A "double beep" means that carrier squelch is on.

TROUBLESHOOTING

If you have trouble operating the handheld, review the radio controls and operation sections. If you think the radio is malfunctioning, check the table below.

Problem   Possible Solutions

GENERAL

The radio does not work at all.   Make sure that the battery is installed correctly, as shown in FIG-1.

                                                            Recharge or replace the battery. (See note 1.)

Operating features do not work exactly   The radio has been factory or dealer programmed for
As expected.   customized operation.

Reception is poor.   Move to a different location. (Note 2.)

                                                            Confirm that the proper antenna is connected to the radio. (See p. 11, "Antenna.")

You cannot hear calls from other radios.   Turn off tone squelch. (See Note 3.)

                                                            Be certain your radio receives on the same as the caller transmits. (Note 4.)

                                                            Recharge the battery. (Note 1.)

Your calls cannot be heard in other radios.   Make sure that your radio transmits on the receive frequency of the radio(s) you want to call. (Note 4.)

                                                            Recharge the battery. (Note 1.)

Battery

The battery loses its charge sooner than   Review the battery charging instructions.
expected.
                                                            Conserve the battery. (Note 5.)

                                                            If the radio is used in extreme cold, warm the radio under your coat. (Note 6.)

                                                            Replace the battery. (Note 1.)

Error Tones

An error tone sounds when the radio is first   See "Error Tones" in the Operation section.
switched on.

An error tone sounds while you are talking   Refer to "Error Tones"
(and the transmitter shuts off).

OPERATION

TROUBLESHOOTING

<u>Problem</u>   <u>Possible Solutions</u>

Tone Coded Squelch

You cannot screen out calls from users
outside of your tone group.

Make sure the channel is programmed with tone squelch.

Activate Tone (coded) squelch. (Note 7.)

You cannot hear Tone coded messages
while in Tone (coded) squelch.

Confirm that the channel is programmed to detect the
same code as the calling radio(s) transmits. (Note 7.)

Others in your tone group cannot hear your
tone coded messages.

Verify that you transmit the same code as the radio(s) you
call are programmed to detect. (Note 7.)

Notes

1) Try a battery pack from a working radio. If the radio in question works with that pack, the original battery is suspect. Charge the suspect battery as recommended in this manual. Then, if the charged original battery cannot power the handheld, try charging again with another charger. If the battery still doesn't hold a charge, the pack should probably be replaced. However, if the battery appears to be good after you try the second charger, the first charger might be faulty. If you think that an accessory is not operating properly, contact your dealer or RITRON. (Radio accessories come with a 90-day limited warranty.)

2) Reception can often be improved by moving a short distance. This effect is more noticeable inside of buildings. The range of these portables equipped with a standard battery pack is about two miles (line-of-sight).

3) If your radio does not detect calls from other radios on the channel, turn off tone squelch. (Press both Volume buttons at the same time - a double beep means that tone squelch is off.)

4) If you want to hear a call, you must select a channel that is programmed to receive the caller's transmit frequency. If you want to call another unit, you must select a channel that is programmed to transmit the other radio's receive frequency. However, if you use a repeater, your channel must be programmed to work with the repeater's transmit and receive frequencies. (A radio channel can hold two separate operating frequencies, one for Receive, the other for Transmit.)

5) Maximum power drain occurs while the radio transmits, so don't hold down the Push-To-Talk button more than necessary. Battery power is used while the handheld is left on to receive calls. If practical, switch off the unit.

6) In extreme cold, a battery's charge capacity is greatly reduced. If you use the radio in very cold weather, periodically warm the portable underneath your coat if possible. An optional remote speaker/microphone would allow you to keep the radio under your coat while transmitting and receiving.

7) In order for radios to communicate using Quiet Call, they must be programmed with the same tone code. Each code is unique, and your radio will respond only to the code programmed.

Press and hold both volume buttons at the same time. A single beep means that tone squelch is on. A double beep means that tone squelch is off.

PROGRAMMING THE RADIO

Each JMX-141 may be programmed to operate on up to 4 channels. The JMX-141 may be programmed using its Push-to-Talk switch or an optional RITRON programming kit.

PTT (PUSH-TO-TALK) PROGRAMMING allows you to program any channel to one of the radio frequencies listed in Table 1 and any Quiet Call code listed in Table 2. The radio will transmit and receive on the programmed table frequency and QC code.

PC PROGRAMMING allows you to program any frequency within the band and channel spacing of the radio model. This method also lets you customize the handheld with optional operating features.

PTT (PUSH-TO-TALK) PROGRAMMING

Placing the Radio in PTT Programming Mode

1. Turn off the radio by pressing the Volume Down button until the "radio off" prompt sounds.

2. Press and hold the PTT button.

3. While holding the PTT button, press and hold the Volume On button until a rapid beeping is heard in the speaker.

4. Release the PTT and Volume On buttons. A series of five beeps will sound in the speaker indicating that the radio is in PTT program mode.

Note: If the radio will not enter PTT program mode, this feature has probably been turned off using the optional PC programming kit.

How to Find Out What Is Already Programmed

1. Place the radio in PTT programming mode as described above.

2. Press the Channel button to select the radio channel you would like to read out.

3. Press the Volume Up button.

4. The radio will sound a series of beeps, pause, and then begin another series. Four series of beeps will be heard, with each series representing a digit. The number of beeps in a series is equal to the digit. (10 beeps = the digit 0)

5. Write down each digit while the radio pauses. List the digits in the order that you hear them.

6. The first two digits represent the frequency as shown in Table 1.

7. The second two digits represent the QC (CTCSS) tone frequency as shown in Table 2.

Note: If you are unable to read out a channel, it has probably been programmed using the PC programming kit to a frequency not contained in Table 1.

PROGRAMMING THE RADIO

PTT Programming the Radio

Four valid digits must be entered for the radio to accept PTT programming. The first two digits entered is the frequency code from Table 1, followed by the two digits for the QC code from Table 2.

1. Place the radio in PTT programming mode as described above.

2. Press the Channel button to select the radio channel you would like to program.

3. Enter the first digit by pressing the PTT button the number of times equal to the digit's value.
    (To enter the digit 0, press the PTT ten times.)

4. Pause after the digit is entered, a tone will sound indicating that the digit has been accepted.

5. Enter the second, third and fourth digits using the same method as the first digit.

6. Press the Volume Up button to enter the new channel programming. The radio will sound a confirmation tone to indicate that programming has been accepted.

PTT Programming Mistakes

Invalid Entries   An error tone means that you tried to save an invalid entry. No programming changes are made in this case. A triple tone will sound next indicating that the radio is still in programming mode, and ready for an entry.

PTT Entry Mistakes   If you press the PTT five times when you intended four, for example, or if you just lose count, do not press the Volume Up button to store the entry. Instead, start over by turning the radio off and placing the radio in programming mode again.

Return To Normal Operation

After you finish programming, turn the radio off and then on again. The radio will beep when it is ready for normal operation.

PROGRAMMING THE RADIO

Table 1 – PTT Programming Frequency Table

Code	Frequency	Description	Code	Frequency	Description
01	154.600	green dot	11	151.775	
02	154.570	blue dot	12	151.805	
03	151.625	red dot	13	151.835	
04	151.955	purple dot	14	151.895	
05	151.925		15	154.490	
06	154.540		16	151.655	
07	154.515		17	151.745	
08	154.655		18	151.865	
09	151.685		19	-----------	
10	151.715		20	-----------	

Table 2 – Quiet Call Codes and Frequencies

QC Code	Freq (Hz)	QC Code	Freq (Hz)	QC Code	Freq (Hz)	QC Code	Freq (Hz)
01	67.0	16	114.8	31	192.8	46	189.9
02	71.9	17	118.8	32	203.5	47	196.6
03	74.4	18	123.0	33	210.7	48	199.5
04	77.0	19	127.3	34	218.1	49	206.5
05	79.7	20	131.8	35	225.7	50	229.1
06	82.5	21	136.5	36	233.6	51	254.1
07	85.4	22	141.3	37	241.8		
08	88.5	23	146.2	38	250.3		
09	91.5	24	151.4	39	69.4		
10	94.8	25	156.7	40	159.8		
11	97.4	26	162.2	41	165.5		
12	100.0	27	167.9	42	171.3		
13	103.5	28	173.8	43	177.3		
14	107.2	29	179.9	44	No Tone		
15	110.9	30	186.2	45	183.5		

COMPUTER SOFTWARE COPYRIGHTS

PROGRAMMING THE RADIO USING A PC COMPUTER

RITRON's programming kit allows programming of the JMX-141 model radios using a PC compatible computer. An adapter cable connects the radio to a computer's serial communications port. Once the cable is hooked up, the user inserts the diskette provided into his computer's floppy disk drive and loads a software program.

This program transfers data between radio and computer memory, and includes on-screen instructions and help. Radio data may be saved to the computer's hard disk in order to program other radios.

The PC Programming Kit Includes:

1) Ritron Transceiver programming software, which is contained on 3.5" diskettes.

2) Installation instructions and a registration form.

3) Ritron PC to radio adapter cable, which is terminated at one end with a DB-25F connector, at the other end with a modular plug. The DB-25 plugs into the computer's serial port, the modular plug into the SST-SRVBD modular jack.

4) An adapter for use with JMX-141 portables. This adapter mates the modular plug to a 3.5 mm plug, for connection to the handheld audio jack.

The PC Programming Kit Requires:

A PC compatible computer with Windows 95 or later. The computer must have an RS-232 serial port available. A hard disk drive is recommended.

Programmable Features

The following features may be programmed on a per channel basis, or will affect all channels together.

Feature	Range	Standard Setting	Per Channel
Carrier Only, No Tones or Codes	-	-	√
Wide Band Channel	Yes - No	Yes	√
Quiet Call (CTCSS)	See Table 2	-	√