MOTOROLA

TALKABOUT®

Two-Way Radio

User's Guide

T8525

KEM-PK14190-47

Safety and General Information

Important Information on Safe and Efficient Operation

Read This Information Before Using Your Radio.

The information provided in this document supersedes the general safety information in user guides published prior to December 1, 2002.

Transmit and Receive Procedure

Your two-way radio contains a transmitter and a receiver. To control your exposure and ensure compliance with the general population/ uncontrolled environment exposure limits, always adhere to the following procedure:

- Transmit no more than 50% of the time.
- To receive calls, release the PTT button.
- To transmit (talk), press the Push to Talk (PTT) button.

Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy exposure only when transmitting (in terms of measuring standards compliance).

Exposure to Radio Frequency Energy

Your Motorola two-way radio complies with the following RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J.
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992.
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-1999 Edition.
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998.

- Ministry of Health (Canada) Safety Code 6. Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 KHz to 300 GHz, 1999.
- Australian Communications Authority Radiocommunications (Electromagnetic Radiation—Human Exposure) Standard, 2003.
- ANATAL ANNEX to Resolution No. 303 of July 2, 2002 "Regulation of limitation of exposure to electrical, magnetic and electromagnetic fields in the radio frequency range between 9 KHz and 300GHz" and "Attachment to resolution #303 from July 2, 2002".

To ensure optimal radio performance and make sure human exposure to radio frequency electromagnetic energy is within the guidelines set forth in the above standards, always adhere to the following procedures.

Portable Radio Operation and EME Exposure

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC regulations.

Do NOT hold its antenna when the radio is "IN USE." Holding the antenna affects its effective range.

Body-Worn Operation

To maintain compliances with FCC/Health Canada RF exposure guidelines if you wear a radio on your body when transmitting always place the radio in a Motorola-supplied or approved clip holder, holster, case or body harness for this product. Use of non-Motorola-approved accessories may exceed FCC/Health Canada RF exposure guidelines.

If you do not use one of the Motorola-supplied or approved body-worn accessories and are not using the radio held in the normal use position, **ensure the radio and its antenna are at least 1 inch (2.5 cm) from your body when transmitting.**

Data Operation

If applicable, when using any data feature of the radio with or without an accessory cable, **position the radio and its antenna at least one inch (2.5 cm) from the body.**

Approved Accessories

For a list of approved Motorola accessories, visit our Web site at www.motorola.com.

Electromagnetic Interference/Compatibility

Note: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility. 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.

Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

Aircraft

When instructed to do so, turn off your radio when onboard an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

Medical Devices – Pacemakers

The Advanced Medical Technology Association recommends that a minimum separation of 6 inches (15 cm) be maintained between a handheld wireless radio and a pacemaker. These recommendations are consistent with the independent research by and recommendations of the U.S. Food and Drug Administration.

People with pacemakers should:

- ALWAYS keep the radio more than 6 inches (15 cm) from their pacemaker when the radio is turned ON.
- Not carry the radio in the breast pocket.
- Use the ear opposite the pacemaker to minimize the potential for interference.
- Turn the radio OFF immediately if there is any reason to suspect that interference is taking place.

Medical Devices – Hearing Aids

Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Medical Devices – Other

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

Safety and General Use While Driving

Check the laws and regulations regarding the use of radios in the area where you drive, and always obey them. If you do use your radio while driving, please:

- Give full attention to driving and to the road.
- Use hands-free operation, if available.
- Pull off the road and park before making or answering a call if driving conditions so require.

The use of a two-way radio while engaged in activities requiring concentration may cause distraction or otherwise impair your ability to safely participate in such activities. Always use technology safely.

Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable

radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.

Potentially Explosive Atmospheres

Turn off your radio prior to entering any area with a potentially explosive atmosphere. Only radio types that are especially qualified should be used in such areas as "Intrinsically Safe." Do not remove, install or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

Note: The areas with potentially explosive atmospheres referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles (such as grain, dust or metal powders) and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often—but not always—posted.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted "Turn off two-way radios." Obey all signs and instructions.

Operational Cautions

Antennas

Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if a conductive material—like jewelry, keys or beaded chains—touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse or other container with metal objects.

Exercise care when removing NiMH or AA batteries. Do not use sharp or conductive tools to remove either of these batteries.

Battery Charger Safety Instructions:

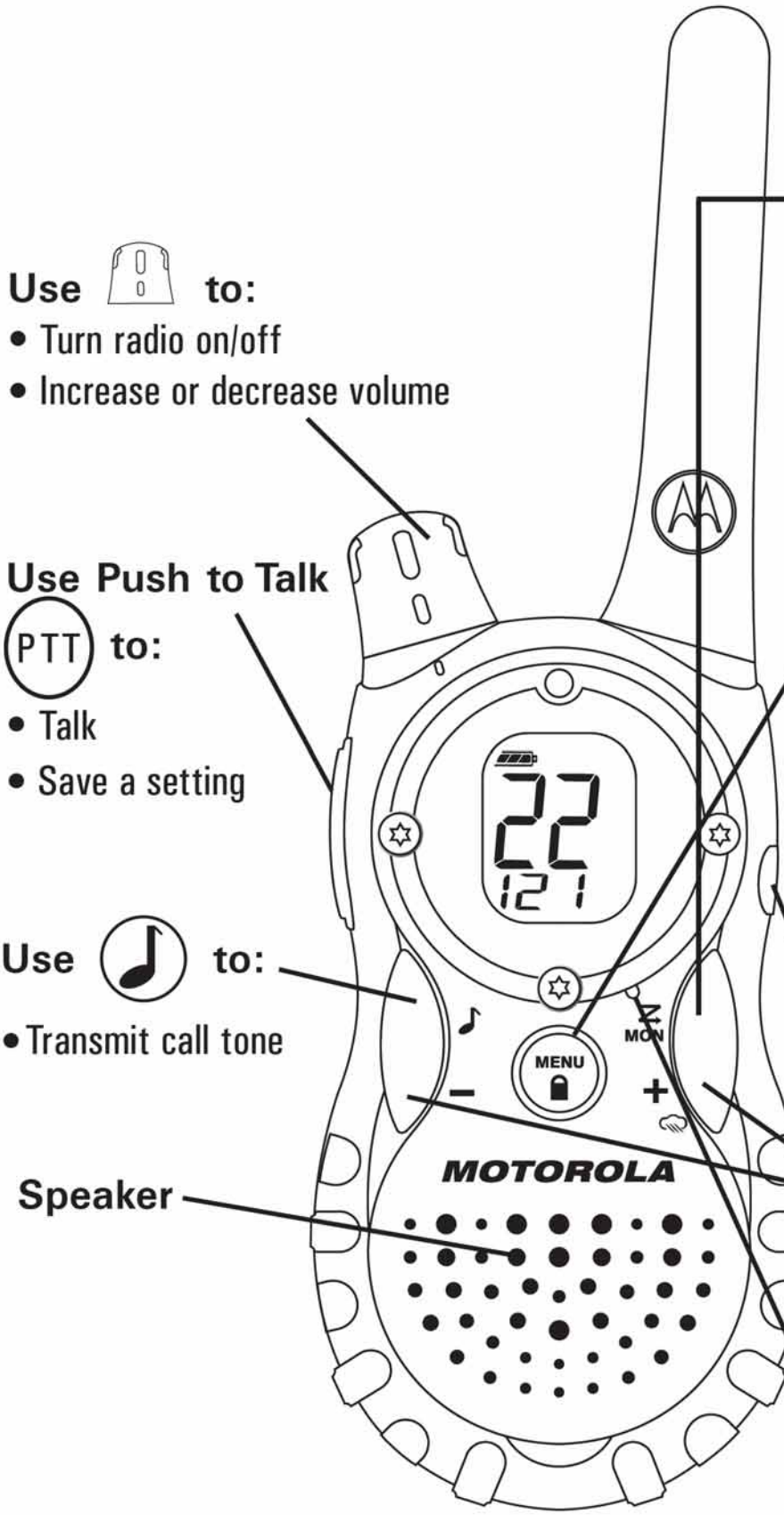
Save these Instructions

1. Do not expose the charger to rain or snow.
2. Do not operate or disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
3. Never alter the AC cord or plug provided with the unit. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
4. To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger from the AC receptacle.
5. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
6. Use of an attachment not recommended or sold by Motorola may result in a risk of fire, electric shock or personal injury.
7. Make sure the cord is located so it will not be stepped on, tripped over or subjected to damage or stress.
8. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of a fire and/or electric shock. If an extension cord must be used, make sure that:
   - The pins on the plug of the extension cord are the same number, size and shape as those on the plug of the charger.
   - The extension cord is properly wired and in good electrical condition.
   - The extension cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150 feet.
9. The supply cord of the AC adaptor cannot be replaced. If the cord is damaged, call customer service at 1-800-638-5119 (U.S. and Canada).

Changes or modifications not expressly approved by Motorola may void the user's authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Note: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Control Buttons



Use to:
- Turn radio on/off
- Increase or decrease volume

Use Push to Talk (PTT) **to:**
- Talk
- Save a setting

Use to:
- Transmit call tone

Speaker

Use Monitor (MON) **to:**
- Scan to see if anyone is on other channels
- Monitor the selected channel for activity

Use (MENU) **to:**
- Select Menu options
- Exit the Menu (when pressed while in a Menu)
- Lock and unlock the keypad (when held down and not in a Menu)

Accessory Jack

Use (–) **and** (+) **to:**
- Scroll through menus
- Turn weather on/off

Microphone

Display Screen Guide

Numbers for Channel, Call Tone

Numbers for Codes

– Battery Meter

– Channel Power Indicator (see Initial Set Up)

– Lock

– Talk Confirmation Tone (Roger Beep)

QT – Noise Filtering

ON / OFF – On/Off for each feature

– Vibrate

– Scan

– Call Tone, Keypad Tone

iVOX – Hands-Free Use Without Accessories

VOX – Hands-Free Use With Accessories

Getting Started

Installing the Batteries

Each radio uses 1 NiMH rechargeable battery pack or 3 AA Alkaline batteries and beeps when the batteries are low.

Installing NiMH Rechargeable Battery Pack

1. Turn the radio off.
2. With the back of the radio facing you, lift the battery cover latch up and remove the cover.
3. Remove the battery pack from the clear plastic bag (Do not disassemble or unwrap the battery pack).
4. Insert the NiMH battery pack with the diagram facing you.
5. Reposition the battery cover and press down to secure.

Installing the Three AA Alkaline Batteries

1. Turn the radio off.
2. With the back of the radio facing you, lift the battery cover latch up and remove the cover.
3. Insert the three AA Alkaline batteries with + and - polarity as shown inside the battery compartment.
4. Reposition the battery cover and press down to secure.

Radio Battery Meter

The radio battery icon shows the battery charge level, from full  to empty  . When the radio has one segment left, the radio chirps periodically or after releasing (PTT) (Low Battery Alert).

Removing the NiMH Battery Pack

1. Turn the radio off.
2. With the back of the radio facing you, lift the battery latch up to release the battery cover and remove the cover.
3. Gently remove the NiMH battery.
4. Reposition the battery cover and press down to secure.

Removing the Three AA Batteries

1. Turn the radio off.
2. With the back of the radio facing you, lift the battery latch up to release the battery cover and remove the cover.
3. Gently remove each battery by easing each battery out individually.
4. Reposition the battery cover and press down to secure.

Notes

- Exercise care when removing NiMH or AA batteries. Do not use sharp or conductive tools to remove either of these batteries.
- Remove the batteries before storing your radio for extended periods of time. Batteries corrode over time and may cause permanent damage to your radio.

Using the Battery Charger

The battery charger provides drop-in charging convenience for NiMH batteries and can be placed on any flat surface, such as a desk or workbench. Charge the NiMH battery overnight (at least 16 hours) before using it for the first time. After the initial charge, an empty battery is fully charged within 14 hours.

1. Follow the steps above to install a NiMH Battery Pack.
2. Plug the AC power supply cord into the jack on the desk stand.
3. Plug the AC power supply into a standard wall outlet.
4. With a radio facing forward, slide it into one of the charging pockets.

Notes

- The red light on the charging base will glow continuously to indicate the radio is correctly inserted and charging. The light will remain red after the battery pack is fully charged.
- When moving between hot and cold temperatures, do not charge the battery until the battery temperature acclimates (usually about 20 *minutes).*
- For optimal battery life, remove the radio or battery from the charger within 16 hours. Do not store the radio in the charger.
- Turn radio off while in charging tray.

Attaching and Removing the Belt Clip

1. Attach belt clip to pocket or belt strap.
2. Align the belt clip post with the hole in the back of the radio.
3. Gently push until the clip clicks in place.

To Remove

1. Push down on the release tab at the top of the belt clip to release the catch.
2. Pull the belt clip away from the back of the radio.

Turning Your Radio On and Off

Turn  clockwise to turn the radio on and counterclockwise to turn the radio off.

1. In the ON position, the radio chirps and briefly shows all feature icons available on the radio.
2. The display screen then shows the current channel, code and all features that are enabled.

Setting the Volume

Press and hold 

for three seconds while rotating  until you reach a comfortable listening level.

1. Rotate  clockwise to increase the volume.
2. Rotate  counterclockwise to decrease the volume.

Do not hold the radio close to your ear. If the volume is set to an uncomfortable level, it could hurt your ear.

Talking and Listening

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

1. To talk, press and hold (PTT).
2. When you are finished talking, release (PTT).

For maximum clarity, hold the radio two to three inches away from your mouth and speak directly into the microphone. Do not cover the microphone while talking.

Talk Range

Your radio is designed to maximize performance and improve transmission range. Do not use the radios closer than five feet apart.

Monitor Button

Pressing and holding (MON) for three seconds allows you to listen to the volume level of the radio when you are not receiving. This allows you to adjust the volume, if necessary. You can also press (MON) to check for activity on the current channel before you talk.

Push to Talk (PTT) Timeout Timer

To prevent accidental transmissions and save battery life, the radio emits a continuous warning tone and stops transmitting if you press (PTT) for 60 continuous seconds.

Menu Options

Selecting the Channel

Your radio has 14 channels. Channels 1 -14 are FRS 0.5 watt only

1. With the radio on, press MENU. When the radio is on a 0.5 watt channel, displays.
2. Press + or − and select an unused or quiet channel.
3. Press PTT to save the channel setting or MENU to continue set up.

Selecting The Interference Eliminator Code

Interference Eliminator Codes help minimize interference by blocking transmissions from unknown sources. Your radio has 121 Interference Eliminator Codes. Codes 1 – 38 are the standard analog codes that appear on other FRS radios. Codes 39 – 121 are additional digital codes added for superior interference protection. 0 is the off position, no analog or digital codes are enabled.

To set the code for a channel:

1. Press MENU until the code starts to flash.
2. Press + or − to select the code.
3. Press PTT to save the code setting or MENU to continue set up.

You can set a different code for each channel using this procedure. An extended press of + or − allows you to scroll through the Interference Code rapidly so you can quickly reach the code you want.

Note: You must set the Interference Eliminator Code to 0 on a radio that uses Interference Eliminator Codes to communicate with radios that do not have Interference Eliminator Codes. Select 0 for “no tone, no code” and OFF will flash on your radio’s display.

Setting and Transmitting Call Tones

Your radio can transmit different call tones to other radios in your group so you can alert them that you want to talk. You have 10 call tones from which to choose.

To set a call tone:

1. With the radio on, press MENU three times until the current call tone setting (0 - 10) flashes and ♪ appears.
2. Press + or − to change and hear the call tone.
3. Press PTT to set the new call tone or MENU to continue set up.

To transmit your call tone to other radios set to the same channel and Interference Eliminator Code as your radio, press ♪.

Note: Setting the call to 0 disables the call tone feature.

Hands-Free Use Without Accessories (iVOX)

You can use the iVOX feature to transmit hands-free without the need for any headset accessories. Once iVOX is turned on, the radio detects your voice and transmits when you speak into the internal microphone.

1. Press MENU until iVOX appears on the display. The current setting On/Off will flash.
2. Press + or − to select On or Off.
3. Press PTT to set or MENU to continue set up.

Hands-Free Use With Accessories (VOX)

You can transmit hands-free more reliably with the use of optional headset accessories. Once VOX is turned on, the radio detects your voice and transmits when you speak.

Many accessories (sold separately) are available for your radio. For more information, visit our Web site at www.motorola.com or http://shop.giantintl.com.

1. Turn the radio off and plug the VOX accessory into the accessory port.
2. Turn the radio on. VOX shows on the display.
3. Adjust the volume appropriately by rotating  . Lower the volume before placing the accessory on your head or in your ear.
4. To turn off, simply remove accessory.

Note: There is a short delay between the time you start talking and when the radio transmits. There is a short delay before the transmission is completed.

Setting the Sensitivity Level When in VOX or iVOX Mode

Adjusting the radio's sensitivity level helps minimize the possibility of unintended noises triggering a transmission and helps the radio pick up soft voices.

1. Press MENU until VOX and the level setting (1-3) appear on the display.
2. Press + or − to select the sensitivity level.
3. Press PTT to set or MENU to continue set up.

3 =	**High Sensitivity** for quiet environments
2 =	**Medium Sensitivity** for most environments
1 =	**Low Sensitivity** for noisy environments

Note: When you connect a headset, the radio is automatically set to the last chosen sensitivity level.

Menu Options (continued)

VibraCall™ Alert

VibraCall is a vibrating alert that notifies you that your radio is receiving a message. This is useful in noisy environments. When the alert is on, the radio vibrates once every 30 seconds when you receive a message on the channel and code you set.

1. To turn vibrating alerts on, press MENU until  is displayed. The current setting will flash.
2. Press + or − to change the setting to Off/On.
3. Press PTT to set or MENU to continue set up.

QT Noise Filtering

The QT noise-filtering feature helps to ensure uninterrupted communication with other Motorola radios that have this feature. This feature also filters out unwanted transmissions from other radios. This is useful in places where there is heavy radio traffic, such as amusement parks or ski resorts.

Note: QT noise filtering is not available when the radio is scanning.

To turn QT noise filtering on or off:

1. Press MENU until QT displays. The current setting On/Off will flash.
2. Press + or − to turn noise filtering On or Off.
3. Press PTT to confirm your selection or MENU to continue set up.

To transmit to a radio that has QT noise filtering turned on:

1. Select the same channel and Interference Eliminator Code as the other radio.
2. Press ♪ to send a call tone. This allows your voice to pass through the QT noise filter on the receiving radio.
3. Press PTT and speak normally.

Note: If you skip step 2, the beginning of your message may not be heard on the receiving radio. For a 30-second period, starting after the last transmission, all transmissions received on the selected channel and code will pass through the QT noise filter.

Keypad Tones

You may enable or disable the speaker key tones. You will hear the key tone each time a button is pushed.

1. Press MENU until ♪ appears. The current setting On/Off will flash
2. Press either + or − to turn On or Off.
3. Press PTT to confirm or MENU to continue set up.

Note: When the key tone feature is off, the following are not disabled:

- Transmit timeout alert tone
- Call tone
- Low battery alert tone or
- The transmitted talk confirmation tone.

Transmitting a Talk Confirmation Tone

You can set your radio to transmit a unique tone when you finish transmitting. It is like saying "Roger" or "Over" to let others know you are finished talking.

1. With the radio on, press MENU until the •)) appears. The current setting On/Off flashes.
2. Press + or − to turn On or Off.
3. Press PTT to set or MENU to complete set up.

Special Features

Keypad Lock

To avoid accidentally changing your radio settings:

1. Press and hold (MENU) until 🔒 displays.
2. When in lock mode, you can turn the radio on and off, adjust the volume, receive, transmit, send a call tone, and monitor channels. All other functions are locked.

To unlock the radio, press and hold (MENU) until 🔒 is no longer displayed.

Scanning Channels

Use scan to search the 22 channels for transmissions from unknown parties, to find someone in your group who has accidentally changed channels, or to quickly find unused channels for your own use.

There is a priority feature and 2 modes of scanning (basic and advanced) to make your search more effective. The basic scan mode uses the channel and code combinations for each of the 22 channels as you have set them (or with the default code value of 1). The "Advanced Scan" mode will scan all channels for any and all codes, detect any code in use, and use that code value temporarily for that channel.

Priority is given to the "home channel," that is, the channel (and Interference Eliminator Code) your radio was set to when you start the scan. This means the initial channel (and code setting) is scanned more often than the other 21 channels, and your radio will respond quickly to any activity occurring on the home channel as a priority.

To start Scanning:

1. Briefly press the (MON) key. The scan Z will appear in the display, and the radio will begin to scroll through the channel and code combinations.
2. When the radio detects channel activity matching the channel and code combination, it stops scrolling and you can hear the transmission.
3. To respond and talk to the person transmitting, press (PTT) within five seconds after the end of the transmission.
4. The radio will resume scrolling through the channels five seconds after the end of any received activity.
5. To stop scanning, briefly press the (MON) key.

To start Advanced Scanning:

1. Set the Interference Eliminator Code to "zero" or OFF.
2. Briefly press the (MON) key. The scan Z will appear in the display, and the radio will begin to scroll through the channels. No Interference Eliminator Codes will filter what is heard.
3. When the radio detects channel activity with ANY code (or NO code), it stops scrolling and you can hear the transmission. Any Interference Eliminator Code that may be in use by that party will be detected and displayed.
4. To respond and talk to the person transmitting, press (PTT) within five seconds of the end of the transmission. The radio will transmit using the newly detected Interference Eliminator Code.
5. The radio will resume scrolling through the channels five seconds after the end of any received activity.
6. To stop scanning, briefly press the (MON) key.

Scanning Notes:

1. If you press (PTT) while the radio is scrolling through inactive channels, the transmission will be on the "home channel". Scanning will resume five seconds after the end of your transmission. You may press the (MON) key to stop scanning at any time.
2. If the radio stops on an undesired transmission, you may immediately resume the scan by briefly pressing (+) or (–).
3. If the radio repeatedly stops on an undesired transmission, you may temporarily remove that channel from the scan list by pressing and holding (+) or (–) for three seconds. You may remove more than one channel in this way.
4. To restore the removed channel(s) to the scan list, turn the radio off and then back on, or exit and re-enter the scanning mode by pressing (MON).
5. You cannot remove the home channel from the scan list.
6. In Advanced Scan, the detected code will only be used for one transmission. You must note the code, exit scan, and set that detected code on that channel to permanently use the detected code.

Channels and Frequencies

Channel	Frequency	Description	Channel	Frequency	Description
1	462.5625 MHz	FRS	8	467.5625 MHz	FRS
2	462.5875 MHz	FRS	9	467.5875 MHz	FRS
3	462.6125 MHz	FRS	10	467.6125 MHz	FRS
4	462.6375 MHz	FRS	11	467.6375 MHz	FRS
5	462.6625 MHz	FRS	12	467.6625 MHz	FRS
6	462.7125 MHz	FRS	13	467.6875 MHz	FRS
7	462.5625 MHz	FRS	14	467.7125 MHz	FRS

Warranty

Consumer Two-Way Radio Products and Accessories purchased in the United States or Canada.

What Does this Warranty Cover?

Subject to the exclusions contained to the right, Giant International Ltd. warrants the Motorola branded consumer two-way radios that operate via Family Radio Service or General Mobile Radio Service that it manufactures ("Products"), the Motorola branded or certified accessories sold for use with these Products that it manufactures ("Accessories") to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. This limited warranty is a consumer's exclusive remedy, and applies as follows to new Motorola branded Products and Accessories manufactured by Giant International Ltd., and purchased by consumers in the United States or Canada, which are accompanied by this written warranty:

Patent and Copyright Information