

- 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 assure 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 the antenna when the radio is "IN USE." Holding the antenna affects the 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](http://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 on 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.

**Other Medical Devices**  
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.

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.

#### 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 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 this charger cannot be replaced. If the cord is damaged, call Motorola Product Services at 1-800-353-2729 in the USA or 1-888-390-6456 TTY (text telephone).

## FCC Licensing Information

Your Motorola radio operates on General Mobile Radio Service (GMRS) frequencies and is subject to the Rules and Regulations of the Federal Communications Commission (FCC). The FCC requires that all operators using GMRS frequencies obtain a radio license before operating their equipment. To obtain the FCC forms, please request Form **605** and **159**, which includes all of the forms and instructions you will need.

If you wish to have the document faxed or mailed, or if you have questions, please use the following contact information:

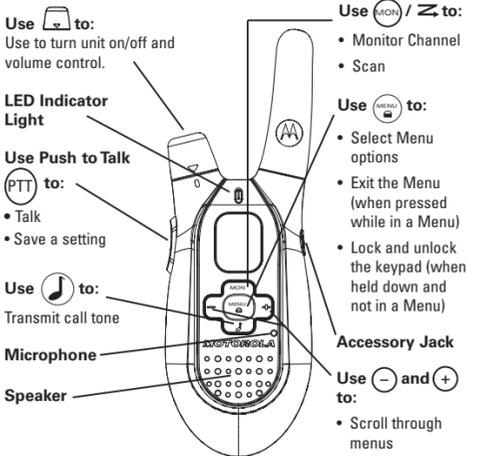
For a Fax: Contact the Fax-On Demand system	For Mail Service: Call the FCC Forms Hotline	If You Have Questions about the FCC License: Call the FCC
1-202-418-0177	1-800-418-FORM (3676)	1-888-CALL-FCC (225-5322)

You may also visit the FCC's Web site at <http://www.fcc.gov>.

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 provide 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



## Display Screen Guide



- Battery Meter
- 1 watt Channel Indicator
- .5 watt Channel Indicator
- Lock
- Call Tone Confirmation (Roger Beep)
- Noise Filtering
- ON – On/Off for each feature
- OFF
- Scan
- Call Tone, Keypad Tone
- iVOX – Hands-Free Use Without Accessories

## Getting Started

**Installing the Batteries:**  
Your radio uses three AA Alkaline batteries and beeps when the batteries are low.

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. Insert three AA Alkaline batteries as shown on the inside of the battery compartment.
4. Reposition the battery cover and press down to secure.

**NOTE:** The FV500 model radio can use a NiMH rechargeable battery instead of three AA batteries. A rechargeable battery upgrade kit is available with rechargeable version.

#### Installing the NiMH Battery Pack:

1. Turn the radio off.
2. Follow step 2 above to remove the battery 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 so the "This Side Up" is showing.
5. Reposition the battery cover and press down to secure.

**Battery Meter**  
The battery icon shows the battery charge level, from full to empty . When the battery is empty, the radio chirps periodically after releasing (PTT). The radio powers off when the voltage drops below a predetermined level to protect the rechargeable battery.

**Note:** 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 Desk Stand Charger (Optional Accessory)**  
The desk stand 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 steps 1-5 from "Installing the NiMH Battery Pack" above.
2. Plug the AC power supply into the plug on the desk stand.
3. Plug the AC power supply into a standard wall outlet.
4. Remove the battery pocket inserts from the charger pockets.
5. With a radio facing forward, slide it into one of the charging pockets.

**Notes**  
• The light on the charging base will glow continuously when radio/battery is inserted.

• 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.

#### Turning Your Radio On and Off

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

1. The radio chirps and briefly shows all features icons available on your radio.
2. The display then shows the current channel, code and features that are selected.

#### Setting the Volume

Rotate clockwise to increase the volume or counterclockwise to decrease the volume.

#### Using the Belt Clip

- To attach the belt clip:
1. Align the belt clip post with the hole in the back of the radio.
  2. Pull the belt clip away from the back of the radio.

To remove the belt clip:

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.

## 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.

**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.

#### Checking the Channel Before Transmitting

Your radio has multiple channels shared on a "take turns" basis. For uninterrupted communication, do not talk on a channel if someone else is currently talking on it. To check for activity on a channel before you talk, press and hold (MON) or (Z) for three seconds. If you hear static, the channel is clear to use.

## Initial Setup

#### Selecting the Channel

Your radio has 22 channels. Channels 1 – 7 and 15 – 22 are one watt. Channels 8 – 14 are 0.5 watt. When the radio is on a one-watt channel, displays. When the radio is on a 0.5-watt channel, displays.

1. With the radio on, press . The current channel flashes.
2. Press (+) or (-) to select a channel.
3. Press (PTT) to confirm your selection or to continue set up.

Channel	Frequency	Description	Channel	Frequency	Description
1	462.5625 MHz	GMRS/FRS	12	467.6625 MHz	FRS
2	462.5875 MHz	GMRS/FRS	13	467.6875 MHz	FRS
3	462.6125 MHz	GMRS/FRS	14	467.7125 MHz	FRS
4	462.6375 MHz	GMRS/FRS	15	462.5500 MHz	GMRS
5	462.6625 MHz	GMRS/FRS	16	462.5750 MHz	GMRS
6	462.6875 MHz	GMRS/FRS	17	462.6000 MHz	GMRS
7	462.7125 MHz	GMRS/FRS	18	462.6250 MHz	GMRS
8	467.5625 MHz	FRS	19	462.6500 MHz	GMRS
9	467.5875 MHz	FRS	20	462.6750 MHz	GMRS
10	467.6125 MHz	FRS	21	462.7000 MHz	GMRS
11	467.6375 MHz	FRS	22	462.7250 MHz	GMRS

**Interference Eliminator Code**  
This radio has 121 Interference Eliminator Codes to help minimize interference by providing you with a choice of code combinations. To set the code for a channel:

1. Short press until the code starts to flash.
  2. Press (+) or (-) to select the code.
  3. Press (PTT) to save the code setting or to continue set up.
- You can set a different code for each channel using this procedure.

**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, short press until the appears. The current call tone setting flashes.
  2. Press (+) or (-) to change and hear the call tone.
  3. Press (PTT) to set the new call tone or to continue set up.

To transmit your call tone to other radios set to the same channel 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 voice activation accessories. Once iVOX is turned on, the radio detects your voice and transmits when you speak.

1. Short press 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 to continue set up.

#### 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. Short press after setting iVOX. VOX will still appear.
2. Press (+) or (-) to select the sensitivity level.

3 = <b>High Sensitivity</b> for quiet environments
2 = <b>Medium Sensitivity</b> for most environments
1 = <b>Low Sensitivity</b> for noisy environments

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

## QT Noise Filtering

The QT noise-filtering feature helps to ensure uninterrupted communication with other Motorola radios that have this feature. This feature 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:

- Short press  until QT displays. The current setting On/Off will flash.
- Press  or  to turn noise filtering On or Off.
- Press  to confirm your selection or  to continue set up.

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

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

**Note:** If you skip step 2, the beginning of your message may not be heard on the receiving radio. For a 320-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.

- Short press  until the current setting On/Off flashes and  appears.
- Press either  or  to turn On or Off.
- Press  to confirm or  to continue set up.

When the Key Tone Feature is off, the following are not disabled:

- Transmit timeout alert tone;
- Power-down alert tone;
- Low battery alert tone; or
- The transmitted TCT 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.

- With the radio on, short press  until the  appears. The current setting On/Off flashes.
- Press  or  to turn On or Off.
- Press  to set or  to continue set up.

## Special Features

### Keypad Lock

To avoid accidentally changing your radio settings:

- Press  until  displays.
- 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  until  is no longer displayed.

### Scanning Channels

Use scanning to monitor channels and codes for transmissions or to find someone in your group who has accidentally changed channels.

- Press and release  or . The scan indicator displays .
- When the radio detects channel activity, it stops scanning and you can hear the transmission.
- To respond to the transmitting, press  within five seconds.
- If no transmissions are found, press  again to turn the scan function off.

**Note:** If your radio’s Interference Eliminator Code is set to 0 while scanning, the radio checks for activity in each channel regardless of the code used on the channel. If your radio’s Interference Eliminator Code is set to 1-121, the radio checks for activity only on channels using codes 1-21 and ignores channels using code 0.

## Advanced Scan

If the radio stops scanning on a channel you do not want to listen to, briefly press and release  or  to resume scanning for the next active channel.

- To prevent the radio from scanning a channel, press and hold  or  for at least three seconds, then release, when the scan first stops on that channel. This temporarily removes the channel from the scan list.
- Press  to exit scan mode.
- Press  a second time to activate scan again.
- To restore a previously deleted channel, turn the radio off and then back on. The channel is now restored.

## Hands-Free Use With Accessories (VOX)

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

- Turn the radio off and plug the VOX accessory into the accessory port.
- VOX will show.
- To transmit, speak into accessory microphone. There is a short delay between the time you start talking and when the radio transmits.
- To turn VOX off, press  or remove the audio accessory.

## Warranty

### Limited Warranty for Personal Communication Products, Accessories and Software 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 wireless telephones, pagers, and 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”) and Motorola branded software contained on CD-Roms or other tangible media and sold for use with these Products that it manufactures (“Software”) 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, Accessories and Software manufactured by Giant International Ltd., and purchased by consumers in the United States or Canada, which are accompanied by this written warranty:

Products Covered	Length of Coverage	Exclusions
<b>A. Products and Accessories</b> as defined above, unless otherwise provided for below.  <b>1. Decorative Accessories and Cases.</b> Decorative covers, bezels, PhoneWrap% covers and cases.  <b>2. Monaural Headsets.</b> Ear buds and boom headsets that transmit mono sound through a wired connection.  <b>3. Consumer Two-Way Radio Accessories.</b>  <b>4. Products and Accessories that are Repaired or Replaced.</b>	<b>A. One (1) year</b> from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.  <b>1. Limited lifetime warranty</b> for the lifetime of ownership by the first consumer purchaser of the product.  <b>2. Limited lifetime warranty</b> for the lifetime of ownership by the first consumer purchaser of the product.  <b>3. Ninety (90) days</b> from the date of purchase by the first consumer purchaser of the product.  <b>4. The balance of the original warranty or for ninety (90) days</b> from the date returned to the consumer, whichever is longer.	<b>Normal Wear and Tear.</b> Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage. Batteries. Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warranty. <b>Abuse &amp; Misuse.</b> Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Motorola or Giant International Ltd., are excluded from coverage. <b>Use of Non-Motorola branded Products and Accessories.</b> Defects or damage that result from the use of Non-Motorola branded or certified Products, Accessories, Software or other peripheral equipment are excluded from coverage. <b>Unauthorized Service or Modification.</b> Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Motorola, Giant International Ltd. or its authorized service centers, are excluded from coverage. <b>Altered Products.</b> Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola branded housings, or parts, are excluded from coverage.  <b>Communication Services.</b> Defects, damages, or the failure of Products, Accessories or Software due to any communication service or signal you may subscribe to or use with the Products Accessories or Software is excluded from coverage.
<b>B. Software.</b> Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).	<b>B. Ninety (90) days</b> from the date of purchase.	<b>Software Embodied in Physical Media.</b> No warranty is made that the software will meet your requirements or will work in combination with any hardware or software applications provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected.  <b>Software NOT Embodied in Physical Media.</b> Software that is not embodied in physical media (e.g. software that is downloaded from the internet), is provided “as is” and without warranty.

#### Who is covered?

This warranty extends only to the first consumer purchaser, and is not transferable.

#### What will GIANT INTERNATIONAL LTD. Do?

GIANT INTERNATIONAL LTD., at its option, will at no charge repair, replace or refund the purchase price of any Products, Accessories or Software that does not conform to this warranty. We may use functionally equivalent reconditioned/refurbished/pre-owned or new Products, Accessories or parts. No data, software or applications added to your Product, Accessory or Software, including but not limited to personal contacts, games and ringer tones, will be reinstalled. To avoid losing such data, software and applications please create a back up prior to requesting service.

#### How to Obtain Warranty Service or Other Information?

To obtain service or information, please call:

#### USA Two-Way Radios

1-800-638-5119

#### Canada Two-Way Radios

1-800-638-5119

For Accessories and Software, please call the telephone number designated above for the product with which they are used.

You will receive instructions on how to ship the Products, Accessories or Software, at your expense, to a GIANT INTERNATIONAL LTD. Authorized Repair Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider, if applicable; (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number.

## Patent and Copyright Information

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