

- 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 out 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:

- This device may not cause harmful interference;
- 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

Your two-way radio contains a transmitter and a receiver. 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.

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

- Do not expose the charger to rain or snow.
- Do not operate or disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
- 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.
- 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.
- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- Use of an attachment not recommended or sold by Motorola may result in a risk of fire, electric shock or personal injury.
- Make sure the cord is located so it will not be stepped on, tripped over or subjected to damage or stress.
- 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.
- 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.

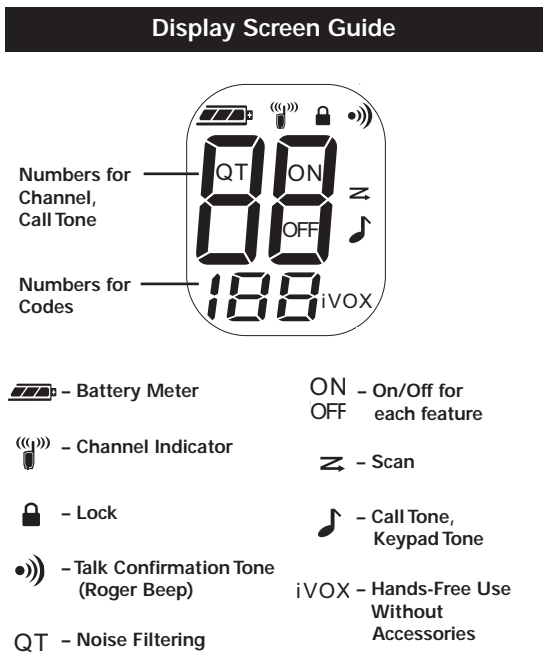
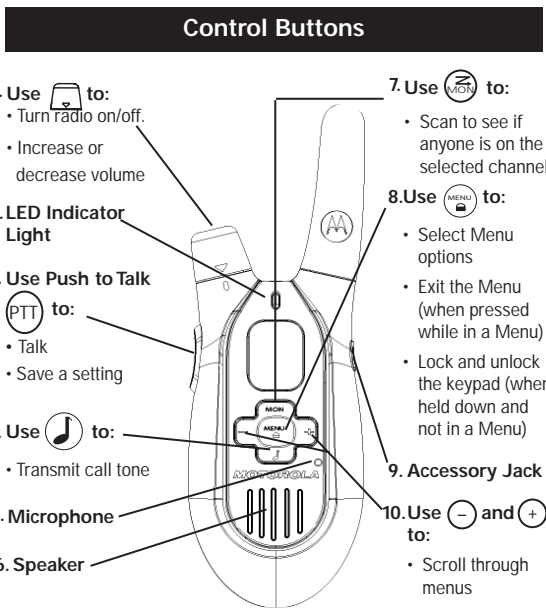
If you wish to have the document faxed or mailed, or if you have questions, please use the following contact information:

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.



Getting Started

Installing the Batteries:

Your radio uses three AA Alkaline batteries and beeps when the batteries are low.

- Turn the radio off.
- With the back of the radio facing you, lift the battery latch up to release the battery cover and remove the cover.
- Insert three AA Alkaline batteries as shown on the inside of the battery compartment.
- Reposition the battery cover and press down to secure.

NOTE: The FV600 model radio can use a NiMH rechargeable battery instead of three AA batteries.

Installing the NiMH Battery Pack:

- Follow step 2 above to remove the battery cover.
- Remove the battery pack from the clear plastic bag. **Do not disassemble or unwrap the battery pack.**
- Insert the NiMH battery pack so the “This Side Up” is showing.
- Reposition the battery cover and press down to secure.

Battery Meter

The battery icon shows the battery charge level, from full [Battery Icon] to empty [Battery Icon]. When the battery is empty, the radio chirps periodically after releasing [PTT] (Low Battery Alert). 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.

- Follow steps 1-5 from “Installing the NiMH Battery Pack” above.
- Plug the AC power supply into the plug on the desk stand.
- Plug the AC power supply into a standard wall outlet.
- Remove the battery pocket inserts from the charger pockets.
- With a radio facing forward, slide it into one of the charging pockets.

Notes

- The light on the AC power supply 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 [Power] clockwise to turn the radio on and counterclockwise to turn the radio off.

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

Setting the Volume

Press and hold [Volume] while rotating [Power] until you reach a comfortable listening level.

- Rotate [Power] clockwise to increase the volume.
- Rotate [Power] 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.

- To talk, press and hold [PTT].
 - 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 [Monitor] 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 use [Monitor] 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.

Initial Setup

Selecting a Channel

Your radio has 22 channels. Channels 8-14 are FRS 0.5 watt only and all other channels are 1 watt GMRS. When the radio is on a 0.5 watt channel, [Channel Icon] displays. When the radio is on a 1 watt channel, [Channel Icon] displays.

- With the radio on, press [Monitor]. The current channel flashes.
- Press [Volume] or [Volume] to select a channel.
- Press [PTT] to confirm your selection or [Monitor] 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

Interference Eliminator Codes help minimize interference by providing you with a choice of code combinations. Your radio has 121 Interference Eliminator Codes. Codes 1 - 38 are the standard codes that appear on other FRS/GMRS radios. Codes 39 - 121 are additional codes added for superior interference protection.

- Short press [Monitor] until the code starts to flash.
 - Press [Volume] or [Volume] to select the code.
 - Press [PTT] to save the code setting or [Monitor] to continue set up.
- You can set a different code for each channel using this procedure. An extended press of [Volume] or [Volume] allows you to scroll through the Interference Codes 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:

- With the radio on, short press [Monitor] until the current call tone setting flashes and [Call Tone Icon] appears.
- Press [Volume] or [Volume] to change and hear the call tone.
- Press [PTT] to set the new call tone or [Monitor] 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 [Call Tone Icon].

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.

- Short press [Monitor] until iVOX appears on the display. The current setting On/Off will flash.
- Press [Volume] or [Volume] to select On or Off.
- Press [PTT] to set or [Monitor] 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.

- Short press [Monitor] after setting iVOX. VOX will still appear.
- Press [Volume] or [Volume] to select the sensitivity level.
- Press [PTT] to set or [Monitor] 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 VOX accessory, the radio is automatically set to the last chosen sensitivity level.


See Special Features section on Accessories.



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:


1. Short press  until **QT** displays. The current setting On/Off will flash.


2. Press  or  to turn noise filtering On or Off.

3. Press  to confirm your selection or  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  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  until  appears. The current setting On/Off will flash.

2. Press either  or  to turn On or Off.

3. 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 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  until the  appears. The current setting On/Off flashes.

2. Press  or  to turn On or Off.

3. Press  to set or  to continue set up.



Using Audio Accessories

Many accessories (sold separately) are available for you radio. For more information, visit our Web site at www.motorola.com.



Special Features

Keypad Lock

To avoid accidentally changing your radio settings:

1. Press  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  until  is no longer displayed.

Priority Scan

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



With priority scan, your home channel is scanned more frequently than any other channel. The home channel is the channel where your radio was set when you started to scan. If you activate scan while your radio's Interference Eliminator Code is set to a number between 1 and 121, the radio checks for activity on each programmed channel and code combination.

Notes:


• All transmissions using code 0 or any other code are ignored.


• The default code for each channel is 1.


• If scanning on code 0, all channels and code combinations are scanned.

1. To start scanning, briefly press and release . The scan indicator displays , and the radio begins to scroll through the channel and Interference Eliminator Code combinations.



2. When the radio detects channel activity, it stops scanning and you can hear the transmission.


3. To respond and talk to the person transmitting, press  within five seconds.


4. To stop scanning, briefly press and release .

Note: If you press  while the radio is scanning, the radio will transmit on the channel you selected before you activated scan (home channel). If no transmission occurs within five seconds, scanning will resume.

Removing Channels from the Scan List (Nuisance Delete Feature)

1. 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.

2. Press  to exit scan mode.

3. Press  a second time to activate scan again.

4. To restore a previously deleted channel, turn the radio off and then back on. The channel is now restored.


Note: You cannot remove your home channel from the scan list. The home channel is the channel your radio was set to when you started the scanning.

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.

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.

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

A. Products and Accessories as defined above, unless otherwise provided for below.

1. **Decorative Accessories and Cases.** Decorative covers, bezels, PhoneWrap% covers and cases.

2. **Monaural Headsets.** Ear buds and boom headsets that transmit mono sound through a wired connection.

3. **Consumer Two-Way Radio Accessories.**

4. **Products and Accessories that are Repaired or Replaced.**

Length of Coverage

A. One (1) year from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.

1. **Limited lifetime warranty** for the lifetime of ownership by the first consumer purchaser of the product.

2. **Limited lifetime warranty** for the lifetime of ownership by the first consumer purchaser of the product.

3. **Ninety (90) days** from the date of purchase by the first consumer purchaser of the product.

4. **The balance of the original warranty or for ninety (90) days** from the date returned to the consumer, whichever is longer.

Exclusions

Normal Wear and Tear. 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.

Abuse & Misuse. 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.

Use of Non-Motorola branded Products and Accessories. 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.

Unauthorized Service or Modification. 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.

Altered Products. 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.

Communication Services. 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. Software.

Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).

B. Ninety (90) days

from the date of purchase.

Software Embodied in Physical Media.

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.

Software NOT Embodied in Physical Media.

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

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.

Canada Two-Way Radios

1-800-638-5119

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another.

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