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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 transmit (talk), press the Push to Talk (PTT) button.
• To receive calls, release the 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 Electronic 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
• ANATEL 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 300 GHz" 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.
Two-way Radio Operation

When using your radio as a traditional two-way radio, **hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from the lips.**

Body-Worn Operation

To maintain compliance 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 1 inch (2.5 cm) from the body.**

Approved Accessories

For a list of approved Motorola accessories, visit our website 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.
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 on board 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.

Persons 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 you have 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 on the use of radios in the area where you drive. Always obey them. When using 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.

Operational Warnings
For Vehicles with an Air Bag
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, unless it is a radio type especially qualified for use 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 radio.” 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 such as 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 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 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 forms and instructions. If you wish to have the document faxed or mailed, or have questions, please use the following contact information.

<table>
<thead>
<tr>
<th>Faxed</th>
<th>Mailed</th>
<th>Questions Regarding FCC license</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact the Fax-On-Demand system at:</td>
<td>Call the FCC forms hotline at:</td>
<td>Contact the FCC at:</td>
</tr>
<tr>
<td>1-202-418-0177</td>
<td>1-800-418-FORM</td>
<td>1-888-CALL-FCC</td>
</tr>
<tr>
<td></td>
<td>1-800-418-3676</td>
<td>1-888-225-5322</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or: <a href="http://www.fcc.gov">http://www.fcc.gov</a></td>
</tr>
</tbody>
</table>

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.
## Getting Started

### Turning On/Off Your Radio

<table>
<thead>
<tr>
<th>Turn Knob</th>
<th>Display</th>
<th>Normal Menu Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image" alt="Display Icon" /></td>
<td><strong>T7400 Display icon when the switch is powered ON</strong>&lt;br&gt;Turn Knob on the top of the radio clockwise to use. Turn the Knob counterclockwise to turn the radio OFF. The radio chirps and displays all feature icons that your radio has available for approximately one second.</td>
</tr>
</tbody>
</table>

- Keypad Lock
- Hi/Lo Power
- Battery Meter
- Quick-Talk
- Weather
- Channel Indicator
- Scan
- Talk Confirmation
- Interference Eliminator Code
- Vibra-Call
- VOX/Hands-free use with or without accessories

### Installing Batteries

Some radio packages include a rechargeable Nickel-Metal Hydride (NiMH) battery, or you may use 4 AA Alkaline batteries. If you would like to obtain the battery, the charger or the Rechargeable Upgrade Kit, please contact place of purchase.
NiMH Battery Installation

Your radio uses one rechargeable Nickel-Metal Hydride Battery pack. These cells provide 13 hours of radio use; based upon 5/5/90 duty cycle (5% Transmit, 5% Receive, 90% Standby).

• To begin, slide the Ribbed Latch on the bottom of the radio away from the back cover, or toward the contacts.
• Slide and lift the back cover off.
• Position the battery with the Motorola Logo side up, and the charge contacts are facing the bottom of the radio. Insert the top of the battery into the radio and push the battery up and into the battery compartment to fit tightly into place.
• Slide and snap the cover back into place.

AA Alkaline Batteries Installation

Your radio also uses 4 AA alkaline batteries. These cells provide 22 hours of radio use. Based upon 5/5/90 duty cycle.

• Push the Ribbed Latch on the bottom of the radio away from the battery door.
• Slide and lift the battery door off.
• Place AA batteries so that the + markings match the markings in the compartment.
• Slide and snap the battery cover into place.
Battery Meter

The battery meter located in the upper left corner of the display indicates how much battery power you have.

<table>
<thead>
<tr>
<th>NiMH/Alkaline %</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100-85</td>
<td>85-25</td>
<td>25-10</td>
<td>Final 10</td>
<td></td>
</tr>
</tbody>
</table>

The radio will power off when the voltage drops below a pre-determined level in order to protect the rechargeable battery. When the battery meter flashes; "---", the radio chirps after releasing \( \text{on} \) and every 5 minutes.

Battery Life

The following chart lists the appropriate battery life during Two-way Use* for Alkaline and NiMH batteries.

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Two-way Use*</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA Alkaline (High Capacity)</td>
<td>22 Hours</td>
</tr>
<tr>
<td>Motorola NiMH Battery-pack</td>
<td>13 Hours</td>
</tr>
</tbody>
</table>

*Two-way Use is defined as 90% standby time, 5% talk time, and 5% receive time.

Note: Use of Scan, VOX, Weather and other features may reduce Battery Life.
Battery Drop-In Charging Tray

The Drop-In Charging Tray can be placed on any flat surface and provides drop-in charging convenience.

- Connect Plug-in Charger and Drop-In Charging Tray by inserting the pin into the rear of Drop-In charging tray, insert pin as far as possible, then stop.

- To charge the battery, place the radio into Drop-In Charging Tray with the front of the radio facing toward you.

**Note:** The battery can be charged while inside the radio or separately. The battery’s silver contacts must face down and the Motorola Logo must face the front of Charger.

The light on the Plug-in Charger will glow continuously when radio/battery is inserted.

**Note:** Allow up to 10 hours for the battery to reach full charge.
Control Buttons

- **Accessory cover/flap**
  - Use (power) to Turn power On/Off and Adjust volume
- **Indicator Light**
  - Use (power) to Talk/Exit a menu
  - Use + and - to scroll through menu settings/Change Channels
- **Speaker**
  - Use to Transmit call tone
- **Microphone**
  - Use to Turn Scan On/Off
  - Use to Scroll through menus Lock the keypad (when held down & not in menu)
Operating Your T7400

**Note:** The microphone is located on the front of your radio, please refer to the diagram on page 18.

- Press and hold \( \text{PTT} \).
- Talk two-to-three inches away from the microphone.
- When you’re finished talking, release \( \text{PTT} \).

While transmitting, the red indicator light located above the display, glows.

**Talk Range**

### Optimal Range
Flat, open areas
- **Outdoor**

### Medium Range
Buildings or trees
- **Outdoor**
  Also near residential buildings

### Minimal Range
Dense foliage or mountains
- **Outdoor**
  Also inside some buildings
- **Indoor**
Accessing the Backlight
Your radio has a Backlight that turns On automatically any time you press a front button (except and ). The Backlight turns Off automatically five seconds after you last pressed a front button.

Lock
• To avoid accidentally changing radio operation, press for three seconds. Now you will see.
• The Lock Feature locks , and , and Scan functions. When the keypad is locked you can still adjust the volume, transmit , send a Call Tone , and monitor (Long Press).
• To unlock, press for three seconds.

Monitor
allows you to listen to all activity on a Channel to tell whether the Channel is currently in use. can also help you determine when a radio is moving out of range.
"Roger" Beeps/Talk Confirmation Tone

When you turn this feature On, your two-way radio transmits a unique tone when you finish transmitting. It’s like saying “Roger” or “Over” and lets others know you have finished talking. If the person you are talking to does not hear the talk confirmation tone, you can enable it by pressing and holding $+$ as you turn On your radio. Now, whenever you release $\text{PTT}$, you let your friends know you have finished talking by transmitting a “Roger” Beep tone. “Roger” Beeps will be disabled as the Default Setting.

**Note:** To toggle the Talk Confirmation Tone feature, turn your radio Off and then back On while pressing and holding $+$.

**Button Beeps**

Every time you press a button on the front of your radio, it beeps unless you turn Button Beeps Off. To turn Button Beeps Off, turn your radio On while you press and hold $-$. To turn Button Beeps back On, turn the radio Off and then back On again while you press and hold $-$. On is the Default setting.
# Frequency and Code Charts

The charts on these pages provide frequency and code compatibility information. These charts are useful when using Motorola Talkabout two-way radios with other GMRS and FRS radios.

<table>
<thead>
<tr>
<th>T7400 Channel</th>
<th>Code Display</th>
<th>Transmit Frequency (MHz)</th>
<th>Transmit Power (Watts)</th>
<th>Receive Frequency (MHz)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-99</td>
<td>462.5625</td>
<td>2</td>
<td>462.5625</td>
<td>FRS 1/GMRS Interstitial 1</td>
</tr>
<tr>
<td>2</td>
<td>0-99</td>
<td>462.5875</td>
<td>2</td>
<td>462.5875</td>
<td>FRS 2/GMRS Interstitial 2</td>
</tr>
<tr>
<td>3</td>
<td>0-99</td>
<td>462.6125</td>
<td>2</td>
<td>462.6125</td>
<td>FRS 3/GMRS Interstitial 3</td>
</tr>
<tr>
<td>4</td>
<td>0-99</td>
<td>462.6375</td>
<td>2</td>
<td>462.3675</td>
<td>FRS 4/GMRS Interstitial 4</td>
</tr>
<tr>
<td>5</td>
<td>0-99</td>
<td>462.6625</td>
<td>2</td>
<td>462.6625</td>
<td>FRS 5/GMRS Interstitial 5</td>
</tr>
<tr>
<td>6</td>
<td>0-99</td>
<td>462.6875</td>
<td>2</td>
<td>462.6875</td>
<td>FRS 6/GMRS Interstitial 6</td>
</tr>
<tr>
<td>7</td>
<td>0-99</td>
<td>462.7125</td>
<td>2</td>
<td>462.7125</td>
<td>FRS 7/GMRS Interstitial 7</td>
</tr>
<tr>
<td>8</td>
<td>0-99</td>
<td>467.5625</td>
<td>0.5</td>
<td>467.5625</td>
<td>FRS 8</td>
</tr>
<tr>
<td>9</td>
<td>0-99</td>
<td>467.5875</td>
<td>0.5</td>
<td>467.5875</td>
<td>FRS 9</td>
</tr>
<tr>
<td>10</td>
<td>0-99</td>
<td>467.6125</td>
<td>0.5</td>
<td>467.6125</td>
<td>FRS 10</td>
</tr>
<tr>
<td>11</td>
<td>0-99</td>
<td>467.6375</td>
<td>0.5</td>
<td>467.6375</td>
<td>FRS 11</td>
</tr>
<tr>
<td>12</td>
<td>0-99</td>
<td>467.6625</td>
<td>0.5</td>
<td>467.6625</td>
<td>FRS 12</td>
</tr>
<tr>
<td>13</td>
<td>0-99</td>
<td>467.6875</td>
<td>0.5</td>
<td>467.6875</td>
<td>FRS 13</td>
</tr>
<tr>
<td>14</td>
<td>0-99</td>
<td>467.7125</td>
<td>0.5</td>
<td>467.7125</td>
<td>FRS 14</td>
</tr>
<tr>
<td>15</td>
<td>0-99</td>
<td>462.5500</td>
<td>2</td>
<td>462.5500</td>
<td>GMRS Primary 1</td>
</tr>
<tr>
<td>16</td>
<td>0-99</td>
<td>462.5750</td>
<td>2</td>
<td>462.5750</td>
<td>GMRS Primary 2</td>
</tr>
<tr>
<td>17</td>
<td>0-99</td>
<td>462.6000</td>
<td>2</td>
<td>462.6000</td>
<td>GMRS Primary 3</td>
</tr>
<tr>
<td>18</td>
<td>0-99</td>
<td>462.6250</td>
<td>2</td>
<td>462.6250</td>
<td>GMRS Primary 4</td>
</tr>
</tbody>
</table>
### T7400 Channel

<table>
<thead>
<tr>
<th>T7400 Channel</th>
<th>Code Display</th>
<th>Transmit Frequency (MHz)</th>
<th>Transmit Power (Watts)</th>
<th>Receive Frequency (MHz)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>0-99</td>
<td>462.6500</td>
<td>2</td>
<td>462.6750</td>
<td>GMRS Primary 5</td>
</tr>
<tr>
<td>20</td>
<td>0-99</td>
<td>462.6750</td>
<td>2</td>
<td>462.6750</td>
<td>GMRS Primary 6</td>
</tr>
<tr>
<td>21</td>
<td>0-99</td>
<td>462.7000</td>
<td>2</td>
<td>462.7000</td>
<td>GMRS Primary 7</td>
</tr>
<tr>
<td>22</td>
<td>0-99</td>
<td>462.7250</td>
<td>2</td>
<td>462.7250</td>
<td>GMRS Primary 8</td>
</tr>
</tbody>
</table>

### Weather Channels and Frequencies

<table>
<thead>
<tr>
<th>Weather Channel</th>
<th>Frequency (MHz)</th>
<th>Weather Channel</th>
<th>Frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WX1</td>
<td>162.550</td>
<td>WX5</td>
<td>162.450</td>
</tr>
<tr>
<td>WX2</td>
<td>162.400</td>
<td>WX6</td>
<td>162.500</td>
</tr>
<tr>
<td>WX3</td>
<td>162.475</td>
<td>WX7</td>
<td>162.525</td>
</tr>
<tr>
<td>WX4</td>
<td>163.425</td>
<td>WX8</td>
<td>162.275</td>
</tr>
</tbody>
</table>
Note: Your radio will only communicate with radios set to the same Channel and Interference Eliminator Code.

Changing your Radio’s Settings

Setting the Channel
• Turn radio On.
• To set, press \( \text{ch} \) once the Channel display begins to flash.
• Then press \( - \) or \( + \) to choose the Channel.
• Press \( \text{PTT} \) to exit this menu.

Note: The red indicator light above the display flashes every second when the Channel is in use.

Setting the Interference Eliminator Code
Interference Eliminator Codes help minimize interference by providing a choice of code combinations. Your radio has 99 Interference Eliminator Codes. Codes 1-38 are the standard codes that appear on other FRS/GMRS radios. Codes 39-99 are additional digital codes added for superior interference protection.

To set the code for a channel:
1. Press \( \text{ch} \) until the code starts to flash.
2. Press \( + \) or \( - \) to select the code.
3. Press \( \text{PTT} \) to save the code setting.
Changing your Radio’s Settings

You can set a different code for each channel using this procedure. An extended press of + of - allow you to scroll through the Interference Eliminator 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.

**Push to Talk Timeout Timer**

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

**Setting the Call Tone**

Your radio can transmit different individual call tones to other radios in your group so you can alert the group that you want to talk to them. There are ten distinct individual call tones to choose from and you can also turn Call Tones Off by selecting Call Tone ☐. Once selected, press 🎤 to transmit the Call Tone to others.

To set your Call Tone:

- Turn radio On.
- Press 🎤 3 times as needed to display: ☐. ☐.
- You can press and hold + or - to scroll through the available call tones. The radio plays a sample of each individual Call tone as you scroll through them.
- The default is set on ☐, or you may choose 0-10.
Scanning

By using the scanning feature, you can monitor Channels and Codes for transmissions and lock in on the one that interests you. More importantly, you can find someone in your group who has accidentally changed Channels and is talking during your scan. You don't have to set a new Channel or Code, the radio just resets itself temporarily to that Channel and Code and you can start talking.

• To start scanning, briefly press the scanning button.
Your Channel/Code screen displays the scanning icon and begins to scroll through Channels. When the radio detects channel activity, it stops on that channel and displays its Channel and Code. You can talk to the person(s) transmitting without having to switch Channels by pressing the transmit button.
• To stop scanning, briefly press the scanning button.
If you press the transmit button while the radio is scanning, the radio will transmit on the Channel which was selected before you activated Scan.
If no transmission occurs within five seconds, scanning will resume.

Advanced Scan

If Scan stops on a Channel that you don’t want, briefly press the scanning button to resume scanning for the next active Channel in the Scan List.

Scan Nuisance Delete

If Scan continuously stops on an undesired Channel, hold press the scanning button or use the key for...
Hands-Free Use/VOX

With Compatible VOX Accessories

- Turn radio Off.
- Open Accessory Cover.
- Insert plug of audio accessory firmly into Accessory Jack.
- Turn radio On. Radio will display: «κ».
- Lower radio volume BEFORE placing accessory on head or in ear.
- To transmit, speak into Accessory Microphone and to receive, stop talking.
- VOX operation can be disabled by pressing or removing audio accessory.

Note: There is a short delay between when you start talking and when the radio transmits. To order accessories, please contact the point of purchase.

Handsfree Use Without Accessories (iVox)

You can use the iVox feature to transmit handsfree without the need for any voice...
activation (VOX) accessories. Once iVOX is turned on, the radio detects your voice and transmits when you speak.
1. Turn the radio off.
2. Turn the radio on while pressing \( \textcircled{\textit{FM}} \). \( \textcircled{i} \) displays.
3. To temporarily disable iVOX, press \( \textcircled{FM} \). \( \textcircled{i} \) flashes intermittently.
4. To turn off iVOX, turn the radio off.

**Setting Sensitivity Level**

Adjusting your radio’s Sensitivity Level helps minimize the possibility of unintended noises triggering a transmission, or enhances the ability to pick up quiet voices.

- Press \( \textcircled{FM} \) 4 times as needed to display \( \textcircled{i} \). The radio will also display the sensitivity type you are setting:
  - Select Sensitivity Level of \( \textcircled{1} \), \( \textcircled{2} \), \( \textcircled{3} \) or by using \( \textcircled{-} \) or \( \textcircled{+} \):
    - \( \textcircled{3} \) = **High Sensitivity**, for quiet environments
    - \( \textcircled{2} \) = **Medium Sensitivity**, for most environments
    - \( \textcircled{1} \) = **Low Sensitivity**, for noisy environments

**Note:** There is a short delay between when you start talking and the radio transmits.
Using Accessories

Make sure the radio is turned Off before plugging audio accessories into the accessory port. Before you place an accessory on your head or in your ear, turn the volume down. To order accessories, please contact the point of purchase.

**Ear-piece with Push-To-Talk Microphone**
Discreet, lightweight ear-piece with hand-operated lapel or collar-mounted microphone. It allows clear communication without disturbance or interference.

**Ear-piece with Boom Microphone**
Discreet, lightweight ear-piece which fits comfortably around the ear while boom microphone allows for remote radio placement and is VOX/Hands-free compatible.
Weather

Your radio can tune in to broadcasts by the United States National Oceanic and Atmospheric Administration (NOAA) Weather Radio and Environment Canada Weatheradio.

You can listen to a weather channel or set your radio to alert you to emergency weather broadcasts that interrupt routine broadcasts.

When you listen to weather channel, you cannot use your radio in scan mode or for two-way communications.

When Weather Alert is activated you will be able to use your radio for two-way communication.

Both NOAA and Environment Canada have transmitters located throughout the United States and Canada, respectively. These transmitters broadcast watches, forecasts, and other information 24 hours a day.

**Note:** NOAA weather radio stations are assigned to cover specific areas and service may be limited. Please check with your local weather office for frequency and details, or visit www.nws.noaa.gov/nwr in the US or www.msc-smc.ec.gc.ca/cd/factsheets/wxradio in Canada to view the appropriate transmitter for your area. The use of the NOAA logo does not provide an endorsement or implied endorsement by NOAA's National Weather Service, nor does the use of the Weatheradio logo provide an endorsement or implied endorsement by Environment Canada.

**Turning Weather Channel Reception On and Off**

To turn weather reception on, press and hold the button for 3 seconds. To turn off, press and hold the button for 3 seconds, or turn the radio off and then back on.
Setting the Weather Channel
Your radio receives 8 weather frequencies (see page 19).
1) After turning weather reception on, press 
   The current channel flashes.
2) Press + or - to select the channel.

Setting the Weather Alert
1) After turning weather reception on, press twice. 
   “–” displays.
2) Press + or - to select Y (ON).

If you activate Weather Alert and return to two-way mode, will display.
As with two-way radio reception, weather channel reception depends on how 
close you are to a transmitter and whether you are indoors or outdoors. Because 
weather channels are transmitted without codes, they may contain static or noise.
QT Noise Filtering

The QT noise filtering feature helps ensure uninterrupted communication with other Motorola radios that have this feature. This feature filters out unwanted transmissions from other radios. It is useful in places where there is heavy radio traffic, such as at an amusement park or ski resort.

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

To turn QT noise filtering on or off:

1. Press until \( Q_T \) displays.
2. Press \( + \) or \( - \) until \( Y \) displays to turn noise filtering on, or until – displays to turn noise filtering off.
3. Press \( PTT \) or \( C \) to confirm your selection.

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 \( PTT \) or \( C \) 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 or have your call tone set to 0, 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.
**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.

- To turn vibrating alerts on, press \( \text{menu} \) until \( \text{vib} \) is displayed, then press \( \text{up} \) to display \( \text{vib} \).
- To turn vibrating alerts off, press \( \text{menu} \) until \( \text{off} \) is displayed in the same menu.
Use and Care

Use a soft damp cloth to clean the exterior.

Do not immerse in water.

Do not use alcohol or cleaning solutions.

If the radio gets wet...

Turn it off and remove batteries.

Dry with soft cloth.

Do not use until completely dry.
# Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Try This:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No power</td>
<td>Reposition or replace Alkaline batteries. Recharge or replace NiMH battery.</td>
</tr>
<tr>
<td>Message not transmitted</td>
<td>Make sure [PTT] is completely pressed as you transmit. Reposition, replace or recharge batteries.</td>
</tr>
<tr>
<td>Hearing other noises or conversation on a Channel</td>
<td>Confirm Interference Eliminator Code is set. Shared Channel or Interference Eliminator Code may be in use, try another.</td>
</tr>
<tr>
<td>Limited talk range</td>
<td>Steel and/or concrete structures, heavy foliage, use in buildings or vehicles decrease range. Check for clear line of sight to improve transmission. Wearing radio close to body such as in a pocket or on a belt decreases range. Change location of radio.</td>
</tr>
</tbody>
</table>
## Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Try This:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message not Received</td>
<td>Confirm radios have the same Channel and Interference Eliminator Code settings. Make sure is <strong>NOT</strong> being pressed while trying to listen. Reposition, replace, or recharge batteries. Obstructions and operating indoors, or in vehicles, may interfere -- change location.</td>
</tr>
<tr>
<td>Heavy static or interference</td>
<td>Radios are too close, they must be at least five feet apart. Radios are too far apart or obstacles interfering with transmission.</td>
</tr>
<tr>
<td>Keypad locked</td>
<td>Make sure keypad is unlocked. Unlock by pressing <strong>Menu</strong> for three seconds.</td>
</tr>
<tr>
<td>Low batteries</td>
<td>Recharge or replace NiMH battery. Replace AA batteries. Extreme operating temperatures affect battery life.</td>
</tr>
<tr>
<td>Cannot activate VOX</td>
<td>Feature not set and On. You can also increase the Sensitivity Level. Please refer to Setting Sensitivity Level on page 24.</td>
</tr>
</tbody>
</table>
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Motorola 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 below, Motorola, Inc. or its licensees warrants its consumer two-way radios that operate via Family Radio Service or General Mobile Radio Service ("Products"), Motorola-branded or certified accessories sold for use with these Products ("Accessories") and Motorola software contained on CD-Roms or other tangible media and sold for use with these Products ("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 Products, Accessories and Software purchased by consumers in the United States or Canada, which are accompanied by this written warranty:

<table>
<thead>
<tr>
<th>Products Covered</th>
<th>Length of Coverage</th>
<th>Exclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. <strong>Products</strong> as defined above, unless otherwise provided for below.</td>
<td>A. One (1) year from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.</td>
<td><strong>Normal Wear and Tear.</strong> Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage. <strong>Batteries.</strong> Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warranty.</td>
</tr>
</tbody>
</table>
### Products Covered

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

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

**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.
<table>
<thead>
<tr>
<th>Products Covered</th>
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<th>Exclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unauthorized Service or Modification.</strong> 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Altered Products.</strong> 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication Services.</strong> 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.</td>
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</tbody>
</table>
**Warranty**

<table>
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<tr>
<th>Products Covered</th>
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<th>Exclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. Software.</strong></td>
<td>B. Ninety (90) days from the date of purchase.</td>
<td><strong>Software Embodied in Physical Media.</strong> 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.</td>
</tr>
<tr>
<td>Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).</td>
<td></td>
<td><strong>Software NOT Embodied in Physical Media.</strong> Software that is not embodied in physical media (e.g. software that is downloaded from the internet), is provided “as is” and without warranty. embodied in physical media (e.g. software that is downloaded from the internet), is provided “as is” and without warranty.</td>
</tr>
</tbody>
</table>

**Who is covered?** This warranty extends only to the first consumer purchaser, and is not transferable.
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How to Obtain Warranty Service or Other Information?
To obtain service or information, please call:

<table>
<thead>
<tr>
<th>USA Two-Way Radios 1-800-638-5119</th>
<th>Canada Two-Way radio 1-800-638-5119</th>
</tr>
</thead>
</table>

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.

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reserved for Motorola, is permitted.
• **22 Channels (8 GMRS, 7 GMRS/FRS, 7 FRS)**
  GMRS channels feature increased power for longer range. 14 channels ensure backward compatibility with FRS two-way radios.

• **99 Interference Eliminator Codes**
  38 standard codes plus 61 exclusive digital codes for superior interference protection.

• **QT Noise Filter**
  Filters out unwanted transmissions in heavy radio traffic areas.

• **VibraCall® Alert**
  Privately alerts you of an incoming call.

• **Handsfree Use (iVOX/VOX)**
  Voice activation lets you talk handsfree with or without optional accessories.

• **8 Weather Channels**
  Receive NOAA weather bulletins. Weather radio service may not be available in all areas. Check with your local weather office for details or visit www.nws.noaa.gov/nwr in the US or www.msc-smc.ec.gc.ca/cd/factsheets/wxradio in Canada. Use of the NOAA or Weatheradio logo does not provide endorsement or implied endorsement by NOAA’s National Weather Service or Environment Canada.

• **Enhanced Scanning**
  Easily finds your group’s channel and code by searching all possible combinations while your home channel is scanned most frequently.

• **Audible Call Tones**
  Multiple distinct ringing options so your group can identify who’s calling.

• **Keypad Lock**
  Prevents your settings from being accidentally changed.

• **Low Battery Alert**
  Audible tone and visual display tell you when the battery is running down.

• **Illuminated Display**
  Easy to read your settings in dark places.

• **Motorola Quality**
  Shock, drop, and temperature tested to meet Motorola’s high quality standards.

• **1 Year Limited Warranty**
  For a copy of this warranty prior to purchase, please ask your retailer.

• **User’s Guide Included**

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FRS/GMRS use approved in the US only; GMRS License Required.

**WARNING CHOKING HAZARD SMALL PARTS**

Not for children under 3 years. This product is not intended to be used as a toy or plaything.