

T5600, T5620, T5700, T5710, T5720
Preliminary User Guide

10/28/2002

Introduction

Congratulations on your purchase of a Motorola Product!

Product registration is an important step toward enjoying your new Motorola product. Registering helps us facilitate warranty service, and permits us to contact you should your Motorola product require an update of other service. Registration is not required for warranty coverage.

To register your product on-line, visit www.motorola.com/warranty/radios.

Please retain your original dated sales receipt for your records. For warranty service of your Motorola Personal Communications Product you will need to provide a copy of your dated sales receipt to confirm warranty status.

For a copy of a large-print version of this guide, or for product-related questions, call:

1-800-353-2729 in the USA

1-888-390-6456 TTY (Text Telephone)

On the web, please refer to www.motorola.com/talkabout

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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 contained in user guides published prior to July 2000.

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), push the Talk button
- To receive calls, release the Talk 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 radio is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR 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 Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999
- Australian Communications Authority Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2001 (applicable to wireless phones only)
- ANATEL, Brasil Regulatory Authority, Resolution 256 (April 11, 2002) "additional requirements for SMR, cellular, and PCS product certification."

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 one to two 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 one 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 website at **www.mot.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 six 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 six 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.

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 Charger Instructions

1. Do not expose the charger to rain or snow.
2. Do not operate the charger if it has received a sharp blow, or has been dropped or damaged in any way.
3. Do not disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
4. Never alter the AC cord or plug provided with the unit. If plug will not fit the outlet, have proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
5. To reduce risk of damage to cord or plug, pull the plug rather than the cord when disconnecting charger from AC receptacle.
6. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
7. Use of an attachment not recommended or sold by Motorola may result in a risk of fire, electric shock, or personal injury.
8. Make sure that the cord is located so that it will not be stepped on, tripped over, or subjected to damage or stress.

9. 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, and
 - The cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150 feet.
10. 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).

Preliminary

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 General Mobile Radio Service (GMRS) frequencies obtain a radio license before operating their equipment. To obtain the FCC forms please request Forms **605** and **159** which includes all forms and instructions. If you wish to have the document faxed, mailed or have questions, please use the following contact information.

Faxed Contact the Fax-On- Demand system at:	Mailed Call the FCC forms hotline at:	Questions Regarding FCC license Contact the FCC at:
1-202-418-0177	1-800-418-FORM 1-800-418-3676	1-888-CALL-FCC 1-888-225-5322 Or: 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 private land mobile and fixed services as certified by an organization representative of the user of those services.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

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

Control Buttons - T5600, T5700

Use  to:

- Turn power on/off
- Adjust volume

Use  to:

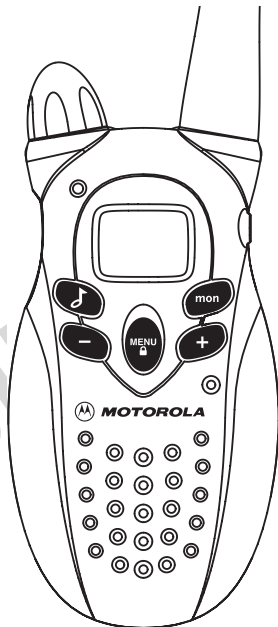
- Talk
- Save a setting

Use  to:

- Transmit call tone

Use  to:

- Lock the keypad (when held down and not in a menu)
- Exit the menu (when pressed while in a menu)



LED Indicator Light

Display

Accessory Jack

Use  to:

- Monitor channel activity

Use   to:

- Scroll through menus

Microphone

Speaker

Control Buttons - T5620, T5710, T5720

Use  to:

- Turn power on/off
- Adjust volume

LED Indicator Light

Use  to:

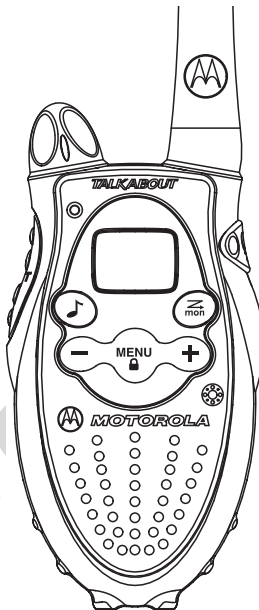
- Talk on the radio
- Save a setting

Use  to:

- Transmit call tone

Removable Front Cover

Speaker



Use  to:

- Lock the keypad (when held down and not in a menu)
- Exit the menu (when pressed while in a menu)

Accessory Jack Cover

Use  (T5320 and T5420) or  (T5410) to:

- Monitor Channel Activity

Use   to:

- Scroll through menus

Microphone

Getting Started

Installing the Batteries

Your radio uses 3 AA Alkaline batteries. The T5600, T5700, T5710, and T5720 model radios can also use a NiCd rechargeable battery. A rechargeable upgrade kit, model number 53614, is available for these radios. For the dealer nearest you, call 1-800-353-2729 (USA), or visit our website at: www.motorola.com/talkabout

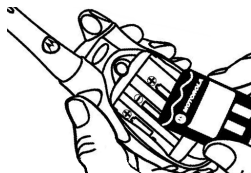
AA Batteries

1. With the back of the radio facing you, lift the battery latch up to release the battery cover.
2. Lift the cover off.
3. Insert 3 AA Alkaline batteries, making sure to insert the batteries to match the + and - polarity markings in the battery compartment.
4. Reposition the battery cover and press down to secure.

NiCd Battery

Do not disassemble or unwrap the battery pack.

1. Follow steps 1 and 2 above.
2. Remove the battery pack from the clear plastic bag.
3. Insert the NiCd battery pack as shown. The metal contacts on the side of the battery must be facing outwards from the radio to connect with the contacts on the battery door.



4. Reposition the battery cover and press down to secure.

Battery Meter

The battery meter in the upper left corner of the display indicates the battery level.

The radio powers off when the voltage drops below a predetermined level to protect the rechargeable battery. When the battery meter is an empty shell (), the radio chirps periodically after releasing  .

Battery Life

The following chart lists the appropriate battery life during typical two-way use* for AA Alkaline and NiCd batteries.

Battery Type	Two-way Use*
AA Alkaline	27 Hours
NiCd	12 Hours

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

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.

Note: When moving between hot and cold environments, do not charge the battery until the battery temperature acclimates (usually about 20 minutes).

Charging Desk Stand (Optional Accessory)

The charging desk stand provides drop-in charging convenience. The charging dock can be placed on any flat surface, such as a desk or workbench. Charge the NiCd battery overnight (at least 16 hours) before using it for the first time.

1. With the radio off, remove the battery cover.
2. Remove the battery pack from the clear plastic bag.
3. Insert the battery pack as indicated on the battery pack label. The metal contacts on the side of the battery must be facing outwards from the radio to connect with the contacts on the battery door. **Do not disassemble or unwrap the battery pack.**
4. Replace the battery cover.
5. Plug the wire on the AC power supply into the plug on the desk stand.
6. Plug the AC power supply into a standard wall outlet.
7. Slide the radio into one of the desk stand charging pockets facing forward. The red light glows when the radio is properly inserted.

After the initial battery charge, the battery is fully charged within 14 hours.

To charge the battery pack separately from the radio:

1. Remove the battery pack from the clear plastic bag.
2. Insert the battery pack into the desk stand charging pocket using the pocket insert provided. **Do not disassemble or unwrap the battery pack.**

3. Plug the wire on the AC power supply into the plug on the desk stand.
4. Plug the AC power supply into a standard wall outlet. The red light glows when the battery is properly inserted.

After the initial battery charge, the battery is fully charged within 14 hours.

Charging Status

The solid red light indicator shows that the radio and/or the NiCd battery are charging.

Note: When moving between hot and cold environments, do not charge the battery until the battery temperature acclimates (usually about 20 minutes).

Note: For optimal battery life, remove the radio or battery from the charger within 16 hours. Do not store the radio in the charger.

After the initial battery charge, when 2 depleted batteries are placed in the charger, they will be fully recharged within 14 hours.

Turning Your Radio On and Off

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

The radio chirps and the display briefly shows all feature icons available on your radio. The display then toggles through the available channels and Interference Eliminator Codes.

Setting the Volume

Rotate  while holding down  or  until you reach a comfortable listening level. Rotate  clockwise to increase the volume or counterclockwise to decrease the volume.

Setting a Channel

Your radio has 22 channels.

Channel Numbers	Description	Transmit Power
Channels 1-7	GMRS Interstitial 1-7 Also FRS 1-7	1 watt
Channels 8-14	FRS 8-14	0.5 watt
Channels 15-22	GMRS Primary 1-8	1 watt

When the radio is on a 1 watt channel,  is displayed.

When the radio is on a 0.5 watt channel,  is displayed.

To set the channel:

1. With the radio on, press  or . The current channel begins to flash.
2. Use  and  to change the channel while it is flashing.
3. Press  to set the new channel.

Talking and Listening

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

- To maximize clarity, hold the radio 2 to 3 inches away from your mouth.
- Press and hold **(PTT)** (Push To Talk) and speak into the microphone.
The LED indicator light glows continuously when transmitting.
- To receive messages, release **(PTT)**.

Monitor Button

Pressing and holding **(mon)** 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 **(mon)** to check for activity on the current channel before you transmit (talk).

Talk Range

Your radio is designed to maximize performance and improve transmission range. It is recommended that you do not use the radios closer than 5 feet apart.



Optimal Range Outdoors
Flat, open areas



Medium Range Outdoors
Buildings or trees
Also near residential
buildings



Minimal Range Outdoors
Dense foliage or
mountains
Also inside some
buildings

Radio Etiquette

Your radio has multiple channels shared on a “take turns” basis. This means that other groups may be talking on the channels. For uninterrupted communications, do not talk over someone who is already using the channel – your message may not be completely heard. Try changing the channel to avoid channel congestion or use **mon** to check for channel activity. If you hear static while holding down **mon**, the channel is clear to use.

Special Features

Interference Eliminator Code

Interference Eliminator Codes help minimize interference by providing you with a choice of code combinations.

1. Press  or  until the code begins to flash.
2. Press  and  to select the code.
3. Press  to save the code setting.

You must set the Interference Eliminator Code to  on an FRS radio that uses Interference Eliminator Codes to communicate with other FRS radios that do not have Interference Eliminator Codes.

You can specify a different Interference Eliminator Code for each channel. To set a channel and code combination:

1. Press  or .
2. Press  and  to select the channel.
3. Press  or  again.
4. Press  and  to select the code.
5. Press  to exit the menu and save the channel and code combination.

Timeout Timer

The Timeout Timer feature helps extend battery life by preventing accidental transmission. If you press  for 60 continuous seconds, the radio emits a continuous warning tone and stops transmitting.

Keypad Lock

To avoid accidentally changing your radio settings, press and hold  or  for 3 seconds or until  is displayed. You can turn the radio on and off, adjust the volume, receive, transmit, send a call tone, and monitor. All other functions are locked.

To unlock your radio settings, press and hold  or  for 3 seconds until  is no longer displayed.

Scan (T5620, T5700, T5710 Only)

Use scan to monitor channels and codes for transmissions and lock in on one that interests you. You can also use this feature to find someone in your group who has accidentally changed channels and is talking during your scan.

To start scanning, briefly press and release  or .

If you activate scan while the Interference Eliminator Code is set to , the radio checks for activity on each channel regardless of the code in use on that channel. If you activate scan while the Interference Eliminator Code is set to , the radio

checks for activity on each channel, but only for codes 1-38. Transmissions using code 0 are ignored.

When the radio detects channel activity, it stops on that channel and displays the code in use.

While the radio is scanning through the channels,  is displayed. When activity on a channel is detected, the radio stops scanning and you can hear the transmission. The display shows the channel and code on which activity was detected.

To respond to the transmission, press  within 5 seconds.

To stop scanning, briefly press and release  or .

Scan Advance

If the radio stops on a channel you don't want to listen to while it is scanning, briefly press  or  to resume scanning for the next active channel.

Nuisance Delete

If the radio continuously stops on an undesired channel while it is scanning, press and hold  or  for at least 3 seconds, then release. This temporarily removes the undesired channel from the scan list. To restore the channel, turn the radio off and then on.

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

Alerts

Channel Busy Indicator

When a channel is busy, the LED flashes twice per second.

Call Tone

The call tone alerts others before you start talking. Press  to allow users on the same channel and Interference Eliminator Code to hear your call tone. The T5600, T5700, and T5620 models have 5 call tones. The T5710 and T5720 model radios have 10 call tones. Setting the call tone to  disables the call tone feature.

1. With the radio on, press  or  3 times. The current call tone setting begins to flash and  appears in the upper portion of the display.
2. Press  and  to change and hear the call tone.
3. Press  or  or  to set new call tone.

Roger Beep/Talk Confirmation Tone

When you turn this feature on, your radio transmits a unique tone when you finish transmitting. It's like saying "Roger" or "over" and lets others know you are finished talking.

- To turn Roger Beep/Talk Confirmation Tone on, press and hold  as you turn your radio on. When you release , after transmitting,  is displayed.

- To turn Roger Beep/Talk Confirmation Tone off, turn your radio off and then back on while pressing and holding .  will not appear on the display.

Quiet6000™ (T5700, T5710, T5720 Only)

The Quiet6000™ function helps ensure uninterrupted communication by preventing you from hearing transmissions from other model radios. However, other radios can hear you.

To turn the Quiet6000 function on or off, press  or  until **Qt** is displayed, then select one of the following settings:

Setting	Function
-	Quiet6000 is turned off.
1	Quiet6000 is turned on, but is suspended while scanning.
2	Quiet6000 is turned on, including while scanning.

You can also turn the Quiet6000 function on (Setting 1) or off (Setting -) by pressing and holding  while you turn on your radio.

If your radio has Quiet6000 on and you want to talk to others in your group who also have Quiet6000 on, you must first transmit a call tone before talking to them. When

the call tone is transmitted,  is displayed on the other radios with the same channel and Interference Eliminator Code, letting them know you want to talk to them. Those radios can then receive and transmit until 30 seconds of inactivity occurs, which resets the Quiet6000 function. While Quiet6000 is on,  is displayed. However, during the 30 seconds of inactivity,  flashes.

Unique Situations

Quiet6000 can also keep your radio quiet when you are in a situation where noise can be disruptive, such as when you are in a movie theater or out hunting. Set Quiet6000 to either 1 or 2. Now when you receive a call from radio, your radio vibrates while  displays on the screen. The  icon remains on the screen until you press any button. Only then can you receive and transmit to those radios until 30 seconds of inactivity occurs and the Quiet6000 function resets.

Accessories

There are many accessories (sold separately) available for your radio. For more information, refer to the brochure included with your radio, contact the place of purchase, call Motorola at: 1-800-353-2729 in the USA or 1-800-739-7834 (TTY), or visit our website at: www.motorola.com/talkabout

To Use Audio Accessories

1. Make sure the radio is off. Plug the accessory connector into the jack. See page 11 and page 12 for the location of the accessory jack on your radio.
1. Turn the radio on and lower the volume before placing the accessory on your head or in your ear.
2. Press  or  while rotating  to adjust the volume to a comfortable level.
3. To transmit, press  and speak into the accessory microphone, if any.
4. To receive, release .

Hands-Free Use/Voice Activation (VOX) with Compatible VOX Accessories (T5710, T5720 Only)

Voice activation (VOX) allows you to talk hands-free when used with optional accessories connected to the radio. See the Motorola Talkabout Accessory Brochure for available VOX accessories.

1. Turn the radio off.
2. Insert the plug of the audio accessory firmly into the accessory jack. See page 11 and page 12 for the location of the accessory jack on your radio.
3. Turn the radio on.  is displayed.
4. Lower the radio volume BEFORE placing the accessory on your head or in your ear.
5. To transmit, speak into accessory microphone. There is a short delay between the time when you start talking and when the radio transmits. To receive, stop talking.

VOX operation can be turned off by pressing  or removing the audio accessory.

Setting the Sensitivity Level

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

1. Press  or  as needed to display .
2. Use  or  to select the sensitivity level:

 = **High Sensitivity** for quiet environments  = **Medium Sensitivity** for most environments  = **Low Sensitivity** for noisy environments

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

Belt Clip (Included)

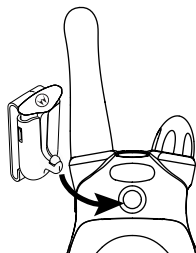
To attach the swivel belt clip included with your radio:

1. Align the belt clip post with the hole in the back of the radio.
2. Gently push until it clicks into place.

To remove the belt clip:

1. Push the release tab on the top of the belt clip down to release the catch.

Pull the belt clip from the back of the radio.



Troubleshooting

Problem	Solution
No Power	Reposition, replace, or recharge batteries.
Erratic Display	Reposition, replace, or recharge batteries.
Message Not Transmitted	Make sure  is completely pressed while you transmit. Reposition, replace, or recharge batteries. Shared channel may be in use; try another channel.
Message Not Received	Confirm radios have same channel settings and Interference Eliminator Code. Make sure  is not inadvertently being pressed. Reposition, replace, or recharge batteries. Obstructions, operating indoors, or in vehicles may interfere with communication. Change your location. Check volume level.

Problem	Solution
Hearing Other Conversation or Noise on a Channel	Shared channel may be in use; try another channel.
Limited Talk Range	Steel and concrete structures, heavy foliage, use in buildings and in vehicles will decrease range. Check for clear line of sight to improve transmission. Wearing the radio close to body such as in a pocket or on a belt decreases range. Change location of radio.
Heavy Static or Interference	Radios are too close. Increase your distance to at least 5 feet apart. Radios are too far apart. Obstacles interfere with transmission.

Use and Care



To clean the radio, use a soft damp cloth.



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.

Battery contacts may be wiped with a dry, lint-free cloth.

Do not use until completely dry.

Preliminary

Motorola Limited Warranty

for the United States and Canada

What Does this Warranty Cover?

Subject to the exclusions contained below, Motorola, Inc. warrants its telephones, pagers, messaging devices, and consumer and professional two-way radios (excluding commercial, government or industrial radios) that operate via Family Radio Service or General Mobile Radio Service, 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.

Products and Accessories

Products Covered	Length of Coverage
Products and Accessories as defined above, unless otherwise provided for below.	One (1) year from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.
Decorative Accessories and Cases. Decorative covers, bezels, PhoneWrap™ covers and cases.	Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.

Products Covered	Length of Coverage
Monaural Headsets. Ear buds and boom headsets that transmit mono sound through a wired connection.	Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.
Consumer and Professional Two-Way Radio Accessories.	Ninety (90) days from the date of purchase by the first consumer purchaser of the product.
Products and Accessories that are Repaired or Replaced.	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, are excluded from coverage.

Use of Non-Motorola 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, 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 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.

Software

Products Covered	Length of Coverage
Software. Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).	Ninety (90) days from the date of purchase.

Exclusions

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 Motorola Do?

Motorola, 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

USA	Phones 1-800-331-6456 Two-Way Radios and Messaging Devices 1-800-353-2729 Pagers 1-800-548-9954
Canada	All Products 1-800-461-4575
TTY	TTY 1-888-390-6456
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 Motorola 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.

What Other Limitations Are There?

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Patent Information

This product is manufactured under one or more of the following United States patents.

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Export Law Assurances

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