MOTOROLA

TALKABOUT®

User's Guide

Model T7100

- **22 Channels**

- **38 Interference Eliminator Codes**
  Interference eliminator codes help minimize interference by providing you with a choice of code combinations.

- **Handsfree Use (VOX)**
  Voice activation lets you talk handsfree with optional accessories.

- **Talk Confirmation Tone**
  It's like saying 'roger' or 'over', and lets others know you have finished talking.

- **Scan**
  Easily finds your group's channel and code by searching all possible combinations while your home channel is scanned most frequently.

- **10 Call Tones**
  Multiple distinct ringing options so your group can identify who's calling.

- **Companding**
  Voice compression for improved range and clearer sound.

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

- **Backlit 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**

- **Batteries (not included)**
  Required 3 AA alkaline batteries or one NiMH rechargeable battery.

⚠ WARNING CHOKING HAZARD SMALL PARTS
Not for children under 3 years. This product is not intended to be used as a toy or plaything.

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

Contents

Contents

3

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. For information regarding radio use in a hazardous atmosphere please refer to the Factory Mutual (FM) Approval Manual Supplement or Instruction Card, which is included with radio models that offer this capability.

Transmit and Receive Procedure

Your two-way radio contains a transmitter and a receiver. To transmit (talk), you must push the Push-to-Talk button; to receive (listen), release the Push-to-Talk button.

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
- National Council on Radiation Protection and Measurements (NCRP) of the United States, Report 86, 1986

Safety and General Information

4

- 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 1999 (applicable to wireless phones only)

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 call quality and may cause the radio to operate at a higher power level than needed.

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.

Safety and General Information

5

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

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, please contact the point of purchase.

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.

Safety and General Information

6

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 United States 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.

Safety and General Information

7

Safety and General Information

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.

8

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.
   - That the extension cord is properly wired and in good electrical condition.
   - That 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, please contact place of purchase.

Safety and General Information

11

Warning:
Adjustment to this unit or replacement of any transmitter component (crystal, semiconductor, etc.) to this unit that could result in a violation of the rules.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Safety and General Information

12

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 Form 605 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

See the Frequency and Code Charts on page 31. For questions on determining your radio frequency, please contact place of purchase.

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.

FCC Licensing Information

13

SAFETY INFORMATION
Your wireless hand-held portable transceiver contains a low power transmitter. When the Push-to-Talk (PTT) button is pushed it sends out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. In August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

CAUTION
To maintain compliance with the FCC's RF exposure guidelines hold the transmitter and antenna at least 2 inch (5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face. If you wear the handset on your body while using the headset accessory, use only the supplied belt clip for this product and when transmitting, take it out of the belt to ensure that the antenna is at least 1 inch (2.5 centimeters) from your body.
Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

FCC Licensing Information

14

Getting Started
Turning On/Off Your Radio

Turn Knob	Display	Normal Menu Mode
🔋		**T7100 Display icon when the switch is powered on** 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.

Keypad Lock ——————————— Scan

Battery Meter ——————— Talk Confirmation

Interference Eliminator Code

Hi/Lo Power

Channel Indicator ——————— 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.
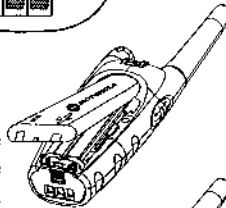
NiMH Battery Installation

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.
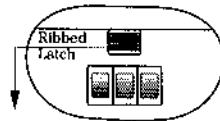
- Slide and lift the back cover off.

- 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.
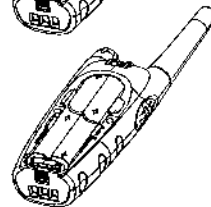
Battery Drop-In Charging Tray

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. The charger pin does not have to be plugged in all the way to function properly. Insert the pin as far as possible, then stop.
* To charge the battery, drop the radio into the 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.
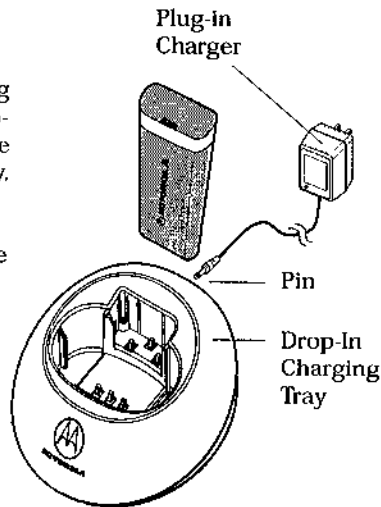
The light on the Plug-in Charger will glow continuously when radio/battery is inserted.

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

Plug-in Charger

Pin

Drop-In Charging Tray

Getting Started

17

Control Buttons

Indicator Light

Use ⊕ to
Talk /Exit a menu

Use ☎ to
Transmit Call Tone

Use ⊙ to
Turn on Back light

Speaker

Accessory cover/flap
Use ⏻ (power) to
Turn power On/Off and
Adjust volume

Use ⊕ and ⊖ to
Scroll through menu settings
/Change Channels

Use ⊛ to
Turn Scan On/Off
(Short press) (long press)

Use ⊜ to
Scroll through menus
Lock the keypad
(when held down
& not in a menu)

Microphone

Control Buttons

18

Operating Your T7100

Note: The microphone is located on the front of your radio, please refer to the diagram on page 19.

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

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

Talking Range

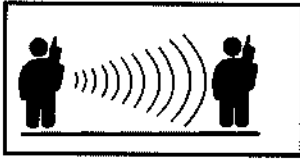| Optimal Range	Medium Range	Minimal Range
Flat, open areas	Buildings or trees	Dense foliage or mountains
• Outdoor	• Outdoor	• Outdoor
	Also near residential buildings	Also inside some buildings
		• Indoor

19

Accessing the Backlight

Your radio has a Backlight that turns On automatically any time you press a front button (except (PTT) and (♪)). The Backlight turns Off automatically five seconds after you last pressed a front button.

Lock

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

Checking Monitor

(MON) allows you to listen to all activity on a Channel to tell whether the Channel is currently in use. (MON) can also help you determine when a radio is moving out of range.

20

"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 🔘 , 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.

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 🔘 once the Channel display begins to flash.
• Then press ⊖ or ⊕ to choose the Channel.
• Press 🔘 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

The Interference Eliminator Code helps minimize interference by providing you with a choice of code combinations.

• Turn radio On.
• To set, press 🔘 twice the Code display begins to flash.
• Then press ⊖ or ⊕ to choose the Code.
• Press 🔘 to exit this menu.

Note: To hear everyone on your Channel, or to communicate with a radio that does not have Interference Eliminator Codes, select Interference Eliminator Code 0.

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 *0*. 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: *CA*.
* 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 *1*, or you may choose *0-10*.

Changing your Radio's Settings

23

Changing your Radio's Settings

24
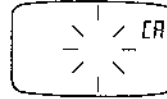
Hands-Free Use/VOX

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: ⛺.
* 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 the radio transmits.
To order accessories, please contact the point of purchase.

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 💬 4 times as needed to display ____. The radio will also display the sensitivity type you are setting:
- Select Sensitivity Level of **l** , **2** , or **3** by using ⊖ or ⊕ :

  3 = High Sensitivity, for quiet environments

  2 = Medium Sensitivity, for most environments

  l = Low Sensitivity, for noisy environments

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

Scanning

By using 🔔, 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 🔔.

Your Channel/Code screen displays **z** 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 🎙 .

- To stop scanning, briefly press 🔔 .

If you press 🎙 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.

Scan Manual Advance

If Scan stops on a Channel that you don't want, briefly press ⊕ 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 ⊖ or ⊕ key for 2 seconds. This will temporarily remove the undesired Channel from being scanned. To restore the deleted Channel, turn Scan Off by pressing 🔔, then turn Scan back On by pressing 🔔 again.

Note: Your Home Channel is the Channel your radio was set to when you activated Scan. You cannot Nuisance Delete your Home Channel.

Changing your Radio's Settings

25

Changing your Radio's Settings

26

Battery Meter

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

	▰▰▰▭	▰▰▭	▰▭	-▰▱-
NiMH %	100-85	85-25	25-10	Final 10
Alkaline %	100-70	70-40	40-10	Final 10

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 🔘 and every 5 minutes.

Battery Life

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

Battery Type	Two-way Use*
AA Alkaline (High Capacity)	22 Hours
Motorola NiMH Battery-pack	13 Hours

*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.

Changing your Radio's Settings

27

Menu Functions

Radio Model	Press	To
T7100	🔘 one time	Change the Channel.Please refer to page 22.
	🔘 two times	Change the Interference Eliminator Code. Please refer to page 22.
	🔘 three times	Change the Call Tone (10 to choose from). Choose 0 if you want to turn Call Tone Off. Please refer to page 23.
	🔘 four times	Sensitivity Level selection. Please refer to Setting Sensitivity Level on page 24.

Changing your Radio's Settings

28

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.

Using Accessories

29

Use and Care

Use and Care

Use a soft damp cloth to clean the exterior.

If the radio gets wet...

Do not immerse in water.

Do not use alcohol or cleaning solutions.

30

Turn it Off and remove batteries.

Dry with soft cloth.

Do not use until completely dry.

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.

T7100 Channel	Code Display	Transmit Frequency (MHz)	Transmit Power (Watts)	Receive Frequency (MHz)	Description
1	0-38	462.5625	2	462.5625	FRS 1/GMRS Interstitial 1
2	0-38	462.5875	2	462.5875	FRS 2/GMRS Interstitial 2
3	0-38	462.6125	2	462.6125	FRS 3/GMRS Interstitial 3
4	0-38	462.6375	2	462.3675	FRS 4/GMRS Interstitial 4
5	0-38	462.6625	2	462.6625	FRS 5/GMRS Interstitial 5
6	0-38	462.6875	2	462.6875	FRS 6/GMRS Interstitial 6
7	0-38	462.7125	2	462.7125	FRS 7/GMRS Interstitial 7
8	0-38	467.5625	0.5	467.5625	FRS 8
9	0-38	467.5875	0.5	467.5875	FRS 9
10	0-38	467.6125	0.5	467.6125	FRS 10
11	0-38	467.6375	0.5	467.6375	FRS 11
12	0-38	467.6625	0.5	467.6625	FRS 12
13	0-38	467.6875	0.5	467.6875	FRS 13
14	0-38	467.7125	0.5	467.7125	FRS 14
15	0-38	462.5500	2	462.5500	GMRS Primary 1
16	0-38	462.5750	2	462.5750	GMRS Primary 2
17	0-38	462.6000	2	462.6000	GMRS Primary 3
18	0-38	462.6250	2	462.6250	GMRS Primary 4

Frequency and Code Charts

31

T7100 Channel	Code Display	Transmit Frequency (MHz)	Transmit Power (Watts)	Receive Frequency (MHz)	Description
19	0-38	462.6500	2	462.6500	GMRS Primary 5
20	0-38	462.6750	2	462.6750	GMRS Primary 6
21	0-38	462.7000	2	462.7000	GMRS Primary 7
22	0-38	462.7250	2	462.7250	GMRS Primary 8

Frequency and Code Charts

32

Carrier squelch (0) disables Interference Eliminator Codes. This allows you to monitor all activity on the Channel you are using. Interference Eliminator Codes help minimize interference by providing you with a choice of code combinations

Interference Eliminator Codes

Code	Hz Freq	Code	Hz Freq	Code	Hz Freq
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3
13	103.5	26	162.2		

Frequency and Code Charts

33

Troubleshooting

Symptom	Try This:
No power	Reposition or replace Alkaline batteries. Recharge or replace NiMH battery.
Message not transmitted	Make sure 💬 is completely pressed as you transmit. Reposition, replace, or recharge batteries.
Hearing other noises or conversation on a Channel	Confirm Interference Eliminator Code is set. Shared Channel or Interference Eliminator Code may be in use, try another.
Limited talk range	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.

Troubleshooting

34

Symptom	Try This:
Message not received	Confirm radios have the same Channel and Interference Eliminator Code settings. Make sure ⊕ is NOT being pressed while trying to listen. Reposition, replace, or recharge batteries. Obstructions and operating indoors, or in vehicles, may interfere -- change location.
Heavy static or interference	Radios are too close, they must be at least five feet apart. Radios are too far apart or obstacles interfering with transmission.
Keypad locked	Make sure keypad is unlocked. Unlock by pressing ⊕ for three seconds.
Low batteries	Recharge or replace NiMH battery. Replace AA batteries. Extreme operating temperatures affect battery life.
Cannot activate VOX	Feature not set and On. You can also increase the Sensitivity Level Please refer to Setting Sensitivity Level on page 25.

Copyright Information

Manufactured, distributed or sold by Giant International Ltd., official licensee for this product. Motorola, the Motorola logo trademarks and the Motorola trade dress are owned by Motorola, Inc. and are used under license from Motorola, Inc. Please contact Giant International Ltd. at 800-638-5119 for questions/comments, warranty, support, or service related to this product. MOTOROLA and the Stylized M Logo are registered in the U.S. Patent & Trademark Office. All other product or service names are the property of their respective owners. © Motorola, Inc. 2002.

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:

Products Covered	Length of Coverage	Exclusions
A. Products as defined above, unless otherwise provided for below.	A. One (1) year from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.	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.

Warranty

37

Products Covered	Length of Coverage	Exclusions
1. Decorative Accessories and Cases. Decorative covers, bezels, PhoneWrap covers and cases.	1. Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.	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.
2. Monaural Headsets. Ear buds and boom headsets that transmit mono sound through a wired connection.	2. Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.	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
3. Consumer Two-Way Radio Accessories.	3. Ninety (90) days from the date of purchase by the first consumer purchaser of the product.	

Warranty

38

Products Covered	Length of Coverage	Exclusions
4. Products and Accessories that are Repaired or Replaced.	4. The balance of the original warranty or for ninety (90) days from the date returned to the consumer, whichever is longer.	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

Warranty

39

Products Covered	Length of Coverage	Exclusions
		or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola housings, or parts, are excluded form 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.

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

What will Motorola Do? Motorola or its licensees, 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.

Warranty

40

How to Obtain Warranty Service or Other Information?
To obtain service or information, please call:

USA	Canada
Two-Way Radios 1-800-638-5119	Two-Way radio 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 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? ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO the duration of this Limited WARRANTY, otherwise the REPAIR, REPLACEMENT, OR REFUND AS PROVIDED UNDER THIS EXPRESS Limited WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER, and is provided in lieu of all other warranties, express of implied. In no event shall Motorola be liable, whether in contract or tort (including negligence) for damages in excess of the purchase price of the Product, Accessory or Software, or for any indirect, incidental, special or consequential damages of any kind, or loss of revenue or profits, loss of business, loss of information or data, software or applications or other financial loss arising out of or in connection with the ability or

Warranty

41

inability to use the Products, Accessories or Software to the full extent these damages may be disclaimed by law.

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.

Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted Motorola software such as the exclusive rights to reproduce and distribute copies of the Motorola software. Motorola software may only be copied into, used in, and redistributed with, the Products associated with such Motorola software. No other use, including without limitation disassembly of such Motorola software or exercise of the exclusive rights reserved for Motorola, is permitted.

Warranty

42