

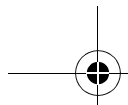
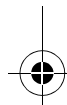


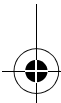
MOTOROLA

TALKABOUT®
TWO-WAY RADIO

User's Guide





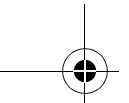
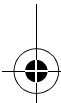


Introduction

Motorola Talkabout T5320, T5410, and T5420 radios operate on Family Radio Service (FRS) designated frequencies. This license-free, two-way radio service was established specifically for family and group recreational use. Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited. Read this manual carefully and make sure you know how to properly operate radio before use.

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

ion



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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. 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

- 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
- 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



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.**

Body-worn Operation

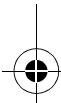
To maintain compliance with FCC/Health Canada RF exposure guidelines, if you

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.



Persons with pacemakers should:

- ALWAYS keep the radio more than six inches (15 centimeters) 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.



- # information

- **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.



- **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**

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.



Getting Started

Turning On/Off Your Radio

Turn Knob	Display	Normal Menu Mode
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Turn knob on the top of the radio clockwise to use. Turn the knob counterclockwise to turn the radio Off.

The radio chirps and the display will show all feature icons that your radio has available for a brief period.

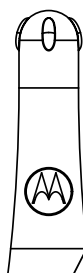


Diagram of Your Radio

Use  to:

- Turn power on/off
- Adjust volume

LED Indicator Light



Use  to:

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



Power

Batteries

T5320, T5410, and T5420 radios operate with 3 AA Alkaline batteries or a NiCd rechargeable battery. A Rechargeable Upgrade Kit, model no. 53614 is available for your radio.

Call 1-800-353-2729 (USA) or 1-800-461-4575 (Canada) for the dealer nearest you or visit our website: www.motorola.com/talkabout.

Installation

Battery Life

The following chart lists the approximate battery life during Two-way use* for AA Alkaline and NiCd batteries.



AA Alkaline	27 Hours
-------------	----------

NiCd	12 Hours
------	----------

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



6. Slide the radio into one of the Desk Stand charging pockets facing forward. The red light will glow if the radio is properly inserted.
7. The radio/battery will be fully charged within 14 hours.

You can also charge the battery pack separately from the radio, as follows:

1. Plug the wire on the AC Power Supply into the plug on the Desk Stand.
2. Plug the AC Power Supply into a standard wall outlet.
3. Insert the battery pack into the Desk Stand charging pocket using the charging pocket insert provided.

4. Make sure that the contacts on the side of the battery pack align with the metal contacts in the pocket of the Desk Stand. The red light will glow if they have been

Talking and Listening

To communicate, all radios in your group must be set to the same Channel (1-14) and Interference Eliminator Code (0-38). T5320 models do not have Interference Eliminator Codes. You must set the Interference Eliminator Code to 0 on a T5410 or T5420 to communicate with a T5320.





- To maximize clarity, hold radio 2 to 3 inches from mouth.
- Press and hold (PTT) and speak into the microphone.

LED Indicator Light glows continuously when transmitting.

To receive messages, release (PTT).






Channel

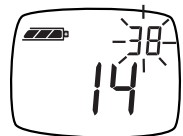
1. With radio On, press , Current Channel will begin to flash.
2. Use  and  to change Channel while flashing.
3. Press  to set new Channel.

Interference Eliminator Code (T5410 or T5420)

The interference eliminator codes help minimize interference by providing you with a choice of code combinations.



- To set the code, press  until the code display begins to blink.

Then press  or  to set the code.






Monitor Button





Pressing and holding  (T5410) or  (T5320 and T5420), lets you hear the radio's volume level when you are not receiving so you can adjust the volume. It is also used to check activity on current Channel before transmitting.


Time-out Timer

The Time-out Timer feature helps extend battery life by preventing accidental transmission. The radio will emit a continuous warning tone after  is pressed for 60 continuous seconds and will stop transmitting.



Keypad Lock

To avoid accidentally changing radio operation, press  for 3 seconds. Now you will see the  icon. This sequence locks the menu,  and , and Scan (T5410 Only) functions. Once locked, you will be able to turn the radio Off and On, increase or decrease Volume, transmit, send a call tone and monitor.



To unlock, press and hold  for 3 seconds.

Scan (T5410 Only)

By Scanning, 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





Scan Advance

If scan stops on a Channel that you don't want to listen to, briefly press either the  and  to resume scanning for the next active Channel.

Nuisance Delete








If scan continuously stops on an undesired Channel:

- Press and hold either  or  for at least 3 seconds.
- Then release.

These steps will temporarily remove the undesired Channel from being scanned. To restore the deselected Channel to the Scan List, turn the radio Off and then On.



To Set the Call Tone


- With the radio on, press  until  appears in the upper right portion of the display.
Current Call Tone setting , will begin to flash.
- Press  and  to change and hear Call Tone while flashing.
- Press  or  to set new Call Tone.

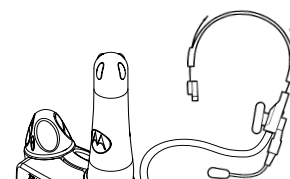
Roger Beep/Talk Confirmation Tone

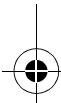
When you turn on this feature, your two-way radio transmits a unique tone when you finish transmitting. It's like saying "Roger" or "Over" and lets others know you're

Hands-Free Use/VOX With Compatible VOX Accessories (T5420 Only)

VOX allows you to transmit “hands-free” by talking while using VOX accessories connected to the radio. See the Motorola Talkabout Accessory Brochure for the available VOX accessories.

- Turn radio Off.
- 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.





Belt-clip(Included)

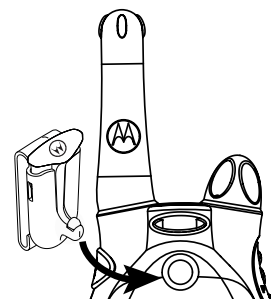
Motorola T5320, T5410, and T5420 radios come with a swivel belt-clip.

To Attach

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

To Remove

1. Push release tab on top of belt clip down to release catch.
2. Pull belt clip from the radio back.



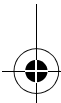


There are many accessories (sold separately) available for T5320, T5410, and T5420 radios. For more information refer to the brochure we've included with your radio, contact place of purchase or call Motorola at:

1-800-353-2729 USA 1-800-461-4575 Canada 1-800-739-7834 (TTY)

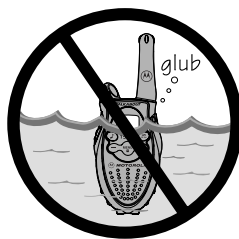
Troubleshooting

Problem	Solution
No Power	Reposition, replace or recharge batteries.
Flicking Display	Reposition, replace or recharge batteries.



Problem	Solution
Hearing Other Conversation or Noise on a Channel	Shared Channel may be in use, try another. Set Eliminator Code to <input type="checkbox"/> on a T5410 or T5420 to communicate with a T5320.
Limited Talk Range	Steel/concrete structures, heavy foliage and use in buildings and in vehicles will decrease range. Check for clear line of sight to improve transmission.

Use and Care



Do not immerse



Do not use alcohol



Limited Warranty for Motorola Personal Communications Products and Accessories Purchased in the United States and Canada

I. What This Warranty Covers

Defects in materials and workmanship in the following new “Products” manufactured, sold or certified by Motorola, with which this limited warranty is included in/on the package: (a) wireless cellular telephones, pagers and two-way radios that operate via “Personal Radio Service” (such as Family Radio Service and General Mobile Radio Service), together with software imbedded in any of these products, and (b)

- Limited Lifetime Warranty Exception. The warranty is a limited lifetime warranty for the lifetime of ownership by the first end-user of the following products, only: (a) decorative covers, including bezel, PhoneWrap™ or case (any model); and (b) ear buds and boom headsets that transmit mono sound through a wire connection (this does not include ear buds or boom headsets that either transmit stereo sound or that are wireless, or both).
- Repair / Replacement Exception. The warranty is for the balance of the original warranty or for 90 days from the date returned and delivered to the first end-user, whichever is longer.

III. Who is Covered

This warranty extends to you only if you are the first end-user purchaser



You will receive instructions on how to ship the Products to Motorola or our designated resource. If instructed to ship the Products, you must ship them with freight, duties and insurance prepaid. Regardless of where you are instructed to return the Products, 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 this Product requires subscription service); (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number. If requested, you must also return all detachable parts such as antennas, batteries and chargers. **RETAIN YOUR ORIGINAL PROOF**

OF PURCHASE.

- Rechargeable batteries that: (a) are charged by other than the Motorola-approved battery charger specified for charging such batteries; (b) have any broken seals or show evidence of tampering; (c) are used in equipment other than the Product for which they are specified; or (d) are charged and stored at temperatures greater than 60 degrees centigrade. Any of these voids the warranty.
- Products that have: (a) serial numbers or date tags that have been removed, altered or obliterated; (b) board serial numbers that do not match each other, or board serial numbers that do not match the housing; or (c) nonconforming or non-Motorola housings or parts. Any of these voids the warranty.
- Defects or damage that result from: (a) use of the Products in a manner that is not normal or customary; (b) improper operation or misuse; (c) accident or neglect such



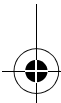
Flat-rate repair rates may apply to Products not covered by this warranty. To obtain information about Products needing repairs that are not covered by this warranty, please call the telephone number previously listed. We will provide information on repair availability, rates, methods of payment, where to send the Products, etc.

VII. Some Other Limitations

This is Motorola's complete warranty for the Products, and states your exclusive remedies. This warranty is given in lieu of all other express warranties. Implied warranties, including without limitation, the implied warranties of merchantability and fitness for a particular purpose, are given only if specifically required by applicable law. Otherwise, they are specifically excluded.

Products directly infringe a United States patent. Our obligation is conditioned on: (a) you notifying us promptly in writing when you receive notice of the claim; (b) you giving us sole control of the defense of the suit and all negotiations for its settlement or compromise; and (c) should the Products become, or in Motorola's opinion be likely to become, the subject of a claim of infringement of a United States patent, you permit us, at our option and expense, either to: procure for you the right to continue using the Products; replace or modify them so that they become non-infringing; or grant you a credit for such Products, as depreciated, and accept their return. The depreciation will be an equal amount per year over the lifetime of the Products, as established by Motorola.

Motorola will have no liability to you with respect to any claim of patent infringement



To obtain information on Motorola Personal Communications Products, including warranty service, accessories and optional Extended Warranties on selected Products, please call:

USA

Cellular 1-800-331-6456

Paging 1-800-548-9954

FRS Radios 1-800-353-2729

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

Canada

All Products 1-800-461-4575

TTY (Text Telephone)

1-888-390-6456

FCC License Not Required

FCC

license

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

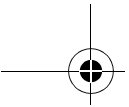


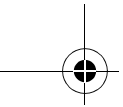
Patent Information

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

5896277 5894292 5864752 5699006 5742484 D408396 D399821 D387758
D389158 5894592 5893027 5789098 5734975 5861850 D395882 D383745
D389827 D389139 5929825 5926514 5953640 6071640 D413022 D416252
D416893 D433001

Export Law Assurances





- **No license fee or airtime charges!**

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

- **Keypad Lock**
Prevents your settings from being accidentally changed

- **Durable, fixed antenna**
Maximizes talk range

- **"Roger" Beep/Talk Confirmation Tone**
Signals others you're done talking

- **Call Button**
Get others' attention before you start talking

- **Weather-resistant**

- **1 Year Limited Warranty**
For warranty details call 1-800-353-2729

- **User's guide included**

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