

Telario™

TR3000™ Portable Radio

USER
GUIDE

6880906Z37-O



MOTOROLA

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Congratulations! You are about to increase your business' productivity through the use of the TR3000™ Radio. The TR3000 Radio is part of the Telario™ product system, a state of the art Motorola digital communications system. Your TR3000 Radio has been designed exclusively to function with other TR3000 Radios and TC3000™ Communicators, and with the TS3000™ Control Station.

The TR3000 Radio offers you two types of communications services:

- Group Talk Communication (up to 3 Groups)
- Person Link Communication

UTAM Registration

Installation of this equipment is subject to notification and coordination with UTAM, Inc. Any relocation of this equipment must be coordinated through, and approved by UTAM. UTAM may be contacted at (800) 429-UTAM (800) 429-8826.

TR3000 Radio Features

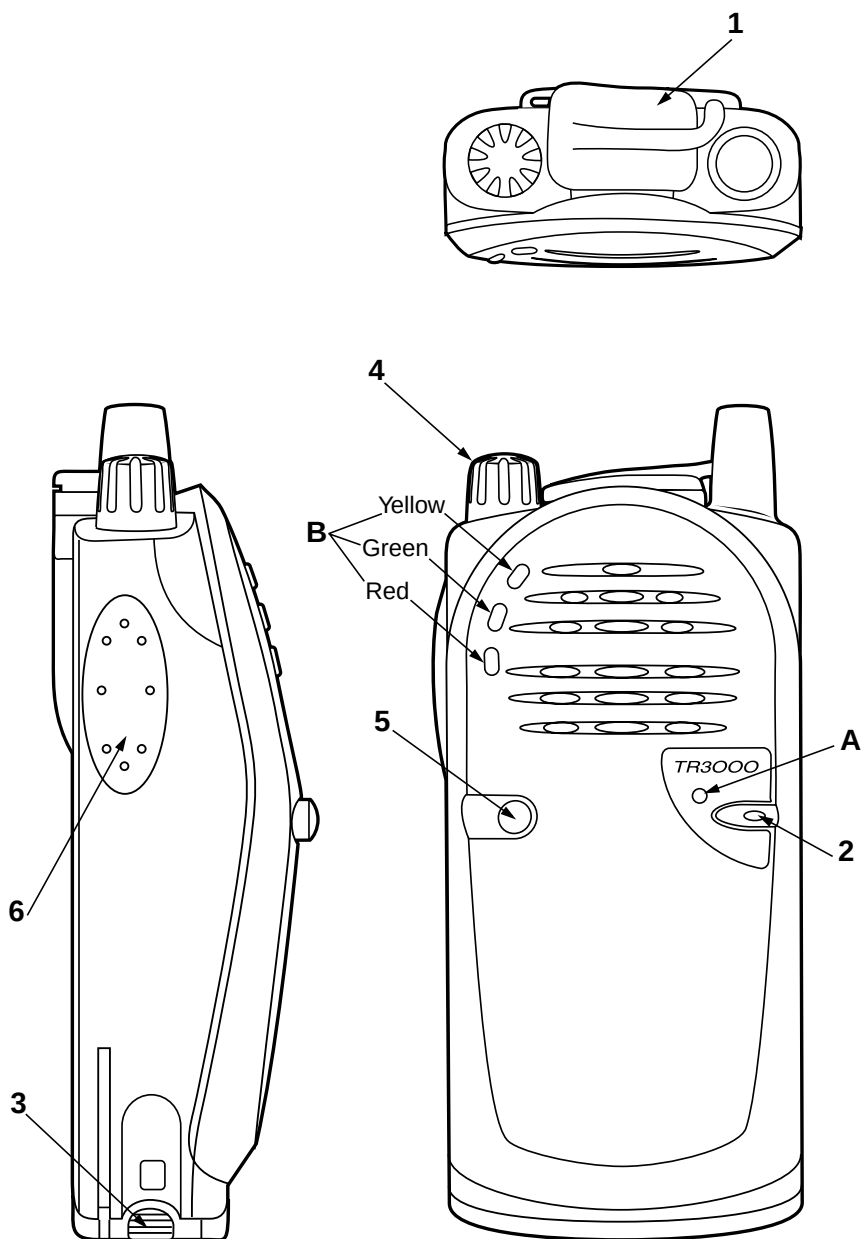
1. Accessory Connector – Connects audio accessories
2. Microphone
3. Battery Latch (located on both sides of the Radio)

Controls

4. Control Knob – Rotate to turn radio on/off and increase or decrease volume
5. Group Selector Button – Press to select a Group Talk location
6. Push-To-Transmit (PTT) Button – Press and hold to speak

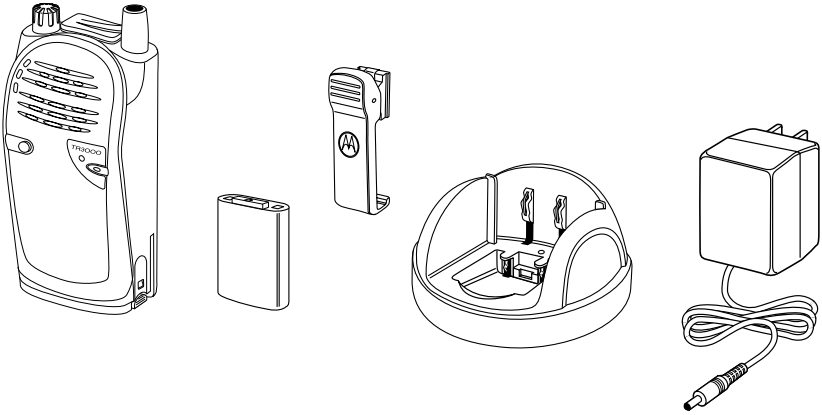
Visual Indicators

- A. Battery Charging LED Indicator – Indicates charging status
- B. LED Indicators – Each individual indicator (yellow, green, and red) represents a Group Talk location. The LED indicators also identify when you are transmitting or receiving a Group Talk or Person Link.



Inspection

The Radio ships standard with the following items:



- NiMH Battery
- Belt Clip
- Rapid Rate Charger with spare battery compartment & charging transformer
- Manual (not shown)

Battery Installation Instructions

To Insert Battery

- ❖ 1 Squeeze the two bottom side battery latches in and slide the battery tray down and out of the Radio as shown in Figure 1.
- ❖ 2 Place the battery pack into the tray with the arrows facing upward. Refer to Figure 2.
- ❖ 3 Slide the battery tray into the Radio until it snaps into place.

To Remove Battery

- ❖ 1 Squeeze the two bottom side battery latches in and slide the battery tray down and out of the Radio as shown in Figure 1.
- ❖ 2 Remove the battery pack from the tray by pushing downward on the battery and pivoting it away from the tray until the hook-latch on the battery clears the tray. Refer to Figure 3.

Figure 1.
Battery Tray

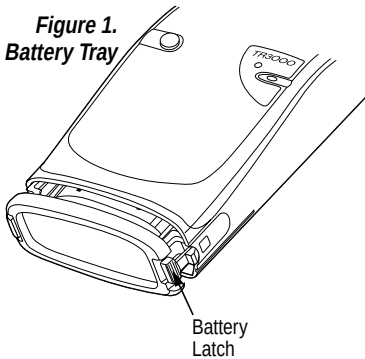


Figure 2.
Insert Battery Pack

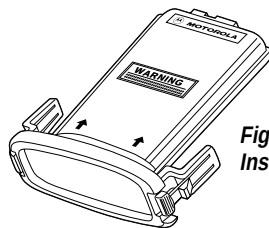
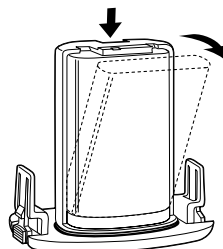


Figure 3.
Remove Battery Pack



Charging Instructions

IMPORTANT: The battery is shipped from the factory uncharged and must be charged before use.

Your battery will need to be charged using the rapid charge method before operating your Radio for the first time. The rapid charge method fully charges your battery in 60 minutes.

Your battery charger has the capability of charging both a battery inside the radio (rapid charge method) and a spare battery (slow charge method) simultaneously.

NOTE: Do not leave the Radio or battery in the charger for extended periods of time (1 week) in order to avoid a decrease in overall battery performance.

- 1 Plug the round end of the transformer cord into the socket located on the back of the charger.
- 2 Plug the transformer into the appropriate AC outlet.

Rapid Charge Method (battery inside radio)

- 1 Align the grooved rails of the Radio with the guide rails of the charger and insert the radio, with the battery inside, into the charger pocket. Refer to Figure 4.

NOTE: The radio can be left on to receive communications while charging without causing harm to the battery or battery charger. However, if the radio remains on while charging, it will require at least 25% more time for the battery to charge to full capacity.

- ❖ When the Radio is properly inserted into the charger pocket, the battery charging LED indicator on the radio will indicate:
- *Red* while the battery is rapid charging. The battery fully charges in 60 minutes.
 - *Green* when the battery is fully charged. This occurs once rapid charge is completed.
 - *Yellow* if there is a charging problem.

Slow Charge Method (battery only)

- ❖ Insert a spare battery into the charger pocket. The red LED on the charger will light when the battery is properly installed. The battery fully charges in 24 hours.

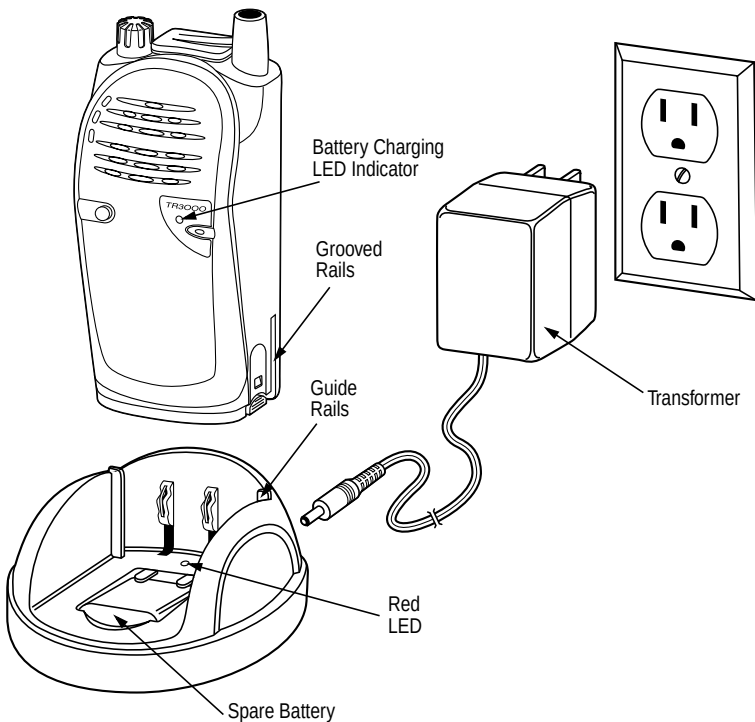


Figure 4.

Attaching and Removing the Belt Clip

To Attach the Belt Clip

- ❖ 1 Locate the grooved rails on the back of the Radio.
- ❖ 2 Align the mounting rails of the belt clip with the grooved rails on the back of the radio. Refer to Figure 5. Slide the belt clip up the grooved rails until it clicks into place.

To Remove the Belt Clip

- ❖ 1 Locate the belt clip release tab on the underside of the belt clip.
- ❖ 2 Lift the belt clip up and insert a small screwdriver between the release tab and the back surface of the radio. Refer to Figure 6.
- ❖ 3 Release the belt clip with the screwdriver still under the release tab and slide the belt clip down and off the radio. Refer to Figure 6.

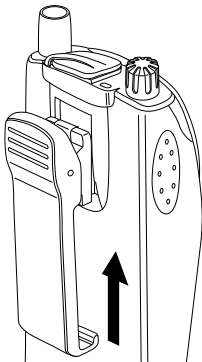


Figure 5.
Attach Belt Clip

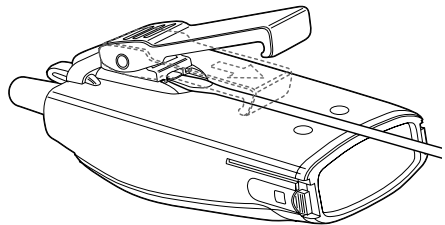


Figure 6.
Remove Belt Clip

Turning the TR3000 Radio On

- 1 Rotate the Control knob clockwise until it clicks.
 - A short, high-pitched tone will sound and the three LED Indicators will blink, indicating successful start-up. If the Radio is not operating properly, a continuous low-pitched tone will sound.

When turning on your Radio for the first time, the first available Group Talk location will be your initial default Group. Afterward, when turning the Radio on, it will default to the last selected Group Talk location. Refer to page 13 to change the Group Talk location.

To preserve battery life, your Radio will enter a “battery saver” mode after several minutes of no activity. Your Radio will return to full operation by pressing any button or by receiving a transmission.

Your Radio and its battery have been designed for uninterrupted use, making it unnecessary to turn it off when not in use. See Charging Instructions on page 8 for more information.

Turning the TR3000 Radio Off

- 1 Rotate the Control knob counterclockwise until it clicks.

Setting the Volume

- 1 Rotate the Control knob to adjust the volume to a comfortable listening level.

Battery Life Indicator

Your Radio has a built-in feature to alert you when your battery life is low (approximately 5-10% charge remaining):

- Two (2) short, low-pitched tones will sound every 10 minutes and upon release of the PTT button.

Time-Out Timer

Time-Out Timer limits the amount of time you have to transmit. Preprogrammed from 1 to 255 seconds or Off.

- When you reach the time limit, a continuous, low pitched tone will sound (until you release the PTT) and your transmission will be cut off.

Idle Timer

Your Radio has a built-in Idle Timer that can be programmed from 0-30 seconds that will take you out of any service you have entered if no action has taken place within the given amount of time.

- For example, if you enter Person Link Service but do not initiate a Person Link, your Radio will automatically return to Group Talk Service, so as not to tie up system resources.

Your TR3000 Radio supports two-way Group Talk communications among TR3000 Radios and TC3000 Communicators.

A Group Talk is a transmission to a specific group of assigned members. Your Radio always defaults to Group Talk Service.

Selecting a Group

LED Indicators

There are three (3) LED Indicators – yellow, green, and red. Each color represents a Group Talk location. Only one Group Talk location can be selected at a time.

1 To select your desired Group Talk location, press the **Group Selector** button.

- A short, high-pitched tone will sound and the LED Indicator of your selected Group will light momentarily, then blink every few seconds.

Initiating a Group Talk

- ❖ 1 To select your desired Group Talk location, press the **Group Selector** button.
 - A short, high-pitched tone will sound and the LED Indicator of your selected Group will light momentarily, then blink every few seconds.
- ❖ 2 Press and hold the PTT button to initiate a Group Talk.
 - Two (2) medium-pitched access tones and one (1) high-pitched permit tone will sound, indicating that you may begin speaking. The LED Indicator will light continuously when transmitting.
- ❖ 3 Speak into the Radio and release the PTT button to listen.

Group Busy Signal

If a continuous, low-pitched tone is heard while pressing the PTT button when attempting a Group Talk, it indicates that someone else is talking on that Group.

User Out of Range

If a continuous low-pitched tone is heard while attempting a Group Talk, it indicates that you are out of range or the Control Station is inoperable.

System Busy Signal

If fast, low-pitched busy tones are heard while attempting a Group Talk, it indicates that all system resources are busy.

System Busy Auto Retry

Your Radio has a built-in system busy auto retry when initiating a Group Talk. When your Group Talk is unable to be connected because the system is busy, your Radio will automatically retry for 20 seconds. When the system is available you will be alerted and can retry your Group Talk.

- When the system is available, three (3) short, high pitched tones will sound.

1 Press the PTT button to retry your Group Talk.

NOTE: Any keypress or incoming communication will terminate the system busy audio retry.

Receiving a Group Talk

A Group Talk can be received **only** on your selected Group Talk location.

1 To select your desired Group Talk location, press the **Group Selector** button.

- A short, high-pitched tone will sound and the LED Indicator of your selected Group will light momentarily, then blink every few seconds.

2 Listen for voice activity. Make sure the PTT button is released.

- The LED Indicator of your selected Group will blink every two (2) seconds when receiving.

3 Press the PTT button to respond and release to listen.

- If a low-pitched tone is heard while attempting to answer the Group Talk, it indicates that you cannot transmit at this time. Refer to "Group Busy Signal" on page 14.

Person Link

Your TR3000 Radio supports Person Link service. A Person Link is a two-way communication that is private among TR3000 Radios and TC3000 Communicators. The TR3000 Radio can only receive and respond to a Person Link. It **cannot** initiate a Person Link **unless** one of the three Groups has been preprogrammed for Person Link service.

Initiating a Person Link

- 1 To select your preprogrammed Link location, press the **Group Selector** button.
 - The LED Indicator will light, indicating your current Link location.
- 2 Press and hold the PTT button to initiate a Person Link.
 - Two (2) medium-pitched access tones and one (1) high-pitched permit tone will sound, indicating that you may begin speaking.
 - All three LED Indicators will light continuously when transmitting.
- 3 Release the PTT button to listen.

Target User Busy Signal

If two (2) medium-pitched access tones and one (1) low pitched tone is heard while attempting a Person Link, it indicates that the other person is on another call and either declined or ignored your Person Link.

User Out of Range

If a continuous, low-pitched tone is heard while attempting a Person Link, it indicates that you are out of range or the Control Station is inoperable.

System Busy Signal

If fast, low-pitched busy tones are heard while attempting a Person Link, it indicates that all system resources are busy.

System Busy Auto Retry

Your Radio has a built-in system busy audio retry when making a Person Link. When your Person Link is unable to be connected because the system is busy, your Radio will automatically retry for 20 seconds. When the system is available you will be alerted and can retry your Person Link.

- When the system is available, three (3) short, high pitched tones will sound.

 Press the PTT button to retry your Person Link.

NOTE: Any keypress or incoming communication will terminate the system busy audio retry.

Receiving a Person Link

- Four (4) short, medium-pitched tones will sound when receiving a Person Link.
- All three LED Indicators will blink until you respond.

Responding to a Person Link

- 1 To accept the Person Link, press the **Group Select** button.
- 2 Press the PTT button within 10 seconds to respond.
 - If you do not respond within 10 seconds, the Radio will remain in your selected Group.
- 3 Release the PTT button to listen.
 - All three LED Indicators will light continuously during the duration of the Person Link.

Responding to a Person Link While in a Group Talk

- 1 To respond to the Person Link, press the **Group Select** button within 10 seconds to end the Group Talk.
 - If you do not respond within 10 seconds, the Radio will remain in your selected Group.
- 2 Press the PTT button to speak and release to listen.
 - All three LED Indicators will blink when receiving and light continuously when transmitting.

Disconnecting a Person Link

- 1 To disconnect the Person Link and return to your selected Group, press the **Group Select** button.

Carrying Accessories:

HLN9766	1-1/2" Spring Action Belt Clip
HLN9783	Nylon Carry Case w/Belt Loop
HLN9785	Hard Leather Carry Case w/Swivel Belt Loop

Battery Chargers:

HTN9018	120 V Desktop Rapid Charger w/Spare Battery Compartment
HTN9019	120 V Multi-Unit Rapid Charger

Batteries:

HNN9021	650 mAH NiMH Battery
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Audio Accessories:

HMN9065	Lightweight Headset w/Swivel Boom Microphone
HMN9066	Flexible Ear Receiver
HMN9067	Remote Speaker Microphone
HMN9068	Earbud w/Clip Microphone and PTT
HMN9069	Two-Piece Surveillance Microphone
HLN9070	Earpiece w/Microphone
HLN9787	Earpiece without Volume Control
HLN9788	Earbud

LED Indications & Alert Tones

LED Indications

Radio Condition	LED Color(s)
Group Selection	Blinking Yellow, Green or Red
Group Talk Transmit	Continuous Yellow, Green or Red
Group Talk Receive	Blinking Yellow, Green or Red
Person Link Transmit	Continuous Yellow, Green and Red
Person Link Receive	Blinking Yellow, Green and Red
Battery Charging Indicator LED: Rapid Charging Fully Charged Unsuccessful Charge	Continuous Red Continuous Green Continuous Yellow

Alert Tones

Radio Condition	Alert Tone(s)
Successful Power-Up	Short, High-Pitched Tone
Unsuccessful Power-Up	Continuous, Low-Pitched Tone
Group Selection	Short, High-Pitched Tone
Group Talk Permit	Two (2) Medium-Pitched Access Tones followed by One (1) High-Pitched Permit Tone
Group Talk Busy Signal	Continuous, Low-Pitched Tone
Person Link Receive	Four (4) Short, Medium-Pitched Tones
Person Link Talk Permit	Two (2) Medium-Pitched Access Tones followed by One (1) High-Pitched Permit Tone
Person Link Target User Busy Signal	Two (2) Medium-Pitched Access Tones followed by One (1) Low-Pitched Tone
Valid (Good) Button Press	Short, High-Pitched Tone
Invalid Button Press	Short, Low-Pitched Tone
User Out of Range	Continuous, Low-Pitched Tone
System Busy Signal	Fast, Low-Pitched Tones
System Busy Auto Retry	Three (3) Short, High-Pitched Tones
Low Battery (approx. 5-10% charge remaining)	Two (2) Short, Low-Pitched Tones every ten (10) minutes
Time-Out Timer Expired	Continuous, Low-Pitched Tone

Symptom	Problem	Solution
1.	1a.	1a.
	1b.	1b.
2.	2a.	2a.
3.	3a.	3a.
4.	4a.	4a.
	4b.	4b.
	4c.	4c.
	4d.	4d.
5.	5a.	5a.
	5b.	5b.
6.	6.	6a.
		6b.
7.	7.	7.
8.	8a.	8a.
	8b.	8b.

[illegible]

Symptom	Problem	Solution



Important Safety Information

Read this information before using your TR3000 Radio. For safe and efficient operation, observe these guidelines.

- Privacy of communications may not be ensured when using your Radio. Your Motorola dealer may enable encryption for sensitive communications.
- Your Radio complies with Part 15 of the U.S. FCC Rules and Industry Canada RSS-213. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Scope

This document provides information and instructions for the safe and efficient operation of Motorola Portable and Mobile Two-Way Radios.

The information provided in this document supersedes the general safety information contained in user guides published prior to 1st April 1999. 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.

Exposure to Radio Frequency Energy National and International Standards and Guidelines

Your Motorola Two-Way Radio, which generates and radiates radio frequency (RF) electromagnetic energy (EME), is designed to comply with the following National and International Standards and Guidelines regarding exposure of human beings to radio frequency electromagnetic energy:

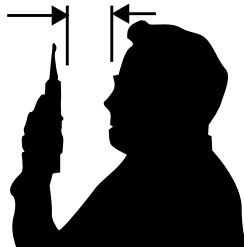
- Federal Communications Commission Report and Order No. FCC 96-326 (August 1996)
- American National Standards Institute (C95-1-1992)
- National Council on Radiation Protection and Measurements (NCRP - 1986)
- International Commission on Non-Ionizing Radiation Protection (ICNIRP - 1988)
- National Radiological Protection Board of the United Kingdom (GS11 - 1998)
- Verband Deutscher Elektrotechniker (VDE) DIN-0848
- Department of Health and Welfare Canada, Safety Code 6
- European Committee for Electrotechnical Standardization (CENELEC)
 - Env. 50166 - 1 1995E - Human Exposure to Electromagnetic Fields Low Frequency (0 Hz to 10 kHz)
 - Env. 50166 - 2 1995E - Human Exposure to Electromagnetic Fields High Frequency (10k Hz to 300 GHz)
 - Proceedings of SC211/8 1996 - Safety Considerations for Human Exposure to E.M.Fs from Mobile Telecommunications Equipment (M.T.E.) in the Frequency Range 30 MHz - 6 GHz (E.M.F - Electromagnetic Fields)

To assure optimal performance and that 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

2.5 to 5.0 cm
(1 to 2 in.)

- When transmitting with the radio, hold it in a vertical position with its microphone 1 to 2 inches (2.5 to 5.0 centimeters) away from your mouth. Keep the antenna at least 1 inch (2.5 centimeters) from your head and body.
- If you wear the radio on your body, ensure that the antenna is at least 1 inch (2.5 centimeters) from your body when transmitting.
- For body-worn operation, the antenna should be kept at least 1 inch (2.5 centimeters) from the body when transmitting.
- 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.



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.

Medical Devices

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of 6 inches (15 centimeters) be maintained between a handheld wireless phone and a pacemaker. These recommendations are consistent with the independent research by, and recommendations of, Wireless Technology Research.

Persons with pacemakers should:

- ALWAYS keep the radio more than 6 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.

Hearing Aids

Some digital 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.

Operational Warnings



Potentially Explosive Atmospheres

Turn off your radio when you are in any area with a potentially explosive atmosphere, unless it is a type especially qualified for use in such areas (for example, Factory Mutual Approved). 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 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.

Batteries

Do not replace or charge batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

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



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.

Portable Radio Care

- Avoid physical abuse of your radio such as carrying it by the antenna or remote microphone.
- Wipe the battery contacts with a lint-free cloth to remove dirt, grease, or other material which may prevent good electrical connections.
- When not in use, keep the accessory jack covered with the protective cap.
- Clean the radio exterior using a cloth moistened with water.



CAUTION: Use of chemicals such as detergents, alcohol, aerosol spray, and/or petroleum products may be harmful and damage the housing and cover.

Batteries and Chargers

IMPORTANT: The battery is shipped from the factory uncharged and must be charged before use.

Charging Batteries

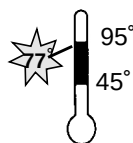
To ensure peak performance, batteries should be fully charged before use and periodically thereafter. The battery lasts approximately 40 hours when fully charged.

Standard use has a 5-5-90 duty cycle. This means during normal use, the average user transmits 5%, receives 5%, and remains in battery conservation mode 90% of the time. If the unit is continuously transmitting and receiving, battery life will be approximately 5 hours. A battery conversation time of up to 300 hours is achievable between charging cycles.

Please observe the following precautions while handling and charging batteries:

Charging Temperatures

Charging batteries in cold temperatures (below 45° F) can result in electrolyte leakage and may destroy the battery. Charging in hot temperatures (above 95° F) will not damage the battery, but will reduce charge capacity. Charge batteries at approximately 77° F.



WARNING: To reduce risk of injury, charge only Motorola NiMH type rechargeable batteries listed. Other types of batteries may burst, causing personal injury and damage.

Recharging NiMH Batteries

Recharge the battery before use to ensure optimum capacity and performance. Your battery was designed to be used only with a Motorola charger, specifically designed for your Radio. Charging in non-Motorola equipment may lead to battery damage and void the battery warranty.

IMPORTANT: While charging a battery that is inside your radio, turn the device off to ensure a proper charge.

Recycling / Disposal of Batteries



WARNING: Batteries contain hazardous substances. do not dispose of any batteries in a fire as they may explode!

The U.S. Environmental Protection Agency (EPA) classifies used NiMH batteries as hazardous waste, unless certain exemptions apply.

At the end of your battery's useful life, it can be recycled. However, recycling facilities may not be available in all areas. Under various state or local laws, such batteries must be recycled or disposed of properly, and cannot be dumped in landfills or incinerators.

Motorola fully endorses and encourages the recycling of NiMH batteries. In the United States, you can ship your NiMH batteries to the following address post paid to be recycled:

INMETCO
P.O. Box 720
245 Porteville Road
Ellwood City, PA 16117
Tel: (412) 758-5515
Fax: (412) 758-9311

You should consider the methods of collecting, labeling, and shipping used NiMH batteries. Consult your federal, state, or local EPA for specific legal requirements and for recycling options in your area.

Motorola, as a responsible corporate citizen, has always been concerned with the protection of the environment. Please feel free to call our toll-free number, 1-800-422-4210, for further battery information.

Battery Charger

- To reduce risk of injury, charge only rechargeable Motorola authorized batteries. Other batteries may explode, causing personal injury and damage.
- Use of accessories not recommended by Motorola may result in risk of fire, electric shock, or injury.
- To reduce the risk of damage to the electric plug and cord, pull by the plug rather than the cord when disconnecting the charger.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in risk of fire and electric shock. If an extension cord must be used, make sure that the cord size is 18AWG for lengths up to 15 feet (4.62mm).
- To reduce risk of fire, electric shock, or injury, do not operate the charger if it has been broken or damaged in any way. Take it to a qualified Motorola service representative.
- Do not disassemble the charger; it is not repairable and replacement parts are not available. Disassembly of the charger may result in risk of electrical shock or fire.
- To reduce risk of electric shock, unplug the charger from the ac outlet before attempting any maintenance or cleaning.
- This equipment is not suitable for outdoor use. Use only in dry locations/conditions.
- Connect equipment only to an appropriately fused and wired supply of the correct voltage (as specified on the product).
- When not in use, disconnect the transformer from the ac outlet.
- The socket outlet to which the transformer is connected should be close by and easily accessible.
- In equipment using fuses, replacements must comply with the type and rating specified in the equipment instructions.
- Maximum ambient temperature around the transformer unit must not exceed 40°C (104°F).
- Output power from the transformer unit must not exceed the ratings stated on the product label located on the bottom of the charger.
- Make sure the cord is located where it will not be stepped on, tripped over, or subjected to water, damage, or stress.

This system operates in the 1.9 GHz Unlicensed Personal Communications Services (UPCS) band. The protocol is a derivative of the Personal Handyphone System (PHS) called Personal Advanced Communications Systems (PACS) that meets the FCC Part 15 Rules and Etiquette. The access method used is Time Division Multiple Access (TDMA) also managed and coordinated by UTAM, Inc. as designed the FCC Part 15 Rules.

Your TR3000 Radio operates on FM radio communication frequencies and is subject to the rules and regulations of the local communications governing agencies.

The following is a list of communications agencies in various countries:

United States

Federal Communications Commission
Consumer Assistance
Branch License Division
Gettysburg, PA 17326
Tel (717) 337-1212

Canada

Contact your regional industry Canada licensing office.

Mexico

Secretaria De Comunicaciones Y Transportes
Direccion General De Politicas
Y Normas De Comunicaciones
Av. Eugenia No. 197-5o. Piso
Mexico, D.F. 06700

If your country is not listed, contact your local Motorola dealer for licensing information.

Service

Because this unit contains a radio transmitter, most local governments prohibit anyone from making internal adjustments to the transmitter unless specifically licensed to do so by government regulations. If your radio fails to operate or any operational difficulties arise, contact your local Motorola dealer.

Proper repair and maintenance procedures assure efficient operation and long life for this radio. Frequency, power and deviation must be checked at least once yearly.

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