

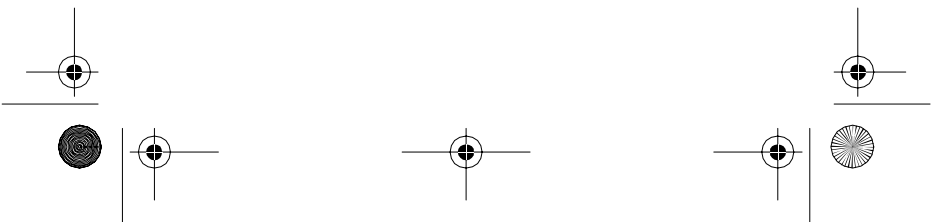
Cat. No. 21-410
OWNER'S MANUAL

Please read before using this equipment.

TRC-510

**Voice-Activated
49 MHz FM Audionic
Five-Channel Transceiver**

Radio Shack





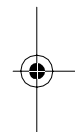
FEATURES



Your Radio Shack TRC-510 Voice-Activated 49 MHz FM Audionic Five-Channel Transceiver is a compact and portable walkie talkie. You can communicate with other TRC-510's, or any other transceiver operating on one of the same frequencies the TRC-510 uses. The TRC-510 adds to your fun at sporting events, on camping trips, or when biking or hiking with your friends.



The TRC-510 is also practical on the job. Use it when taking an inventory in a warehouse, keeping track of your staff in a large building, or talking to your crew on a construction site. The TRC-510's uses are practically unlimited!

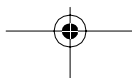


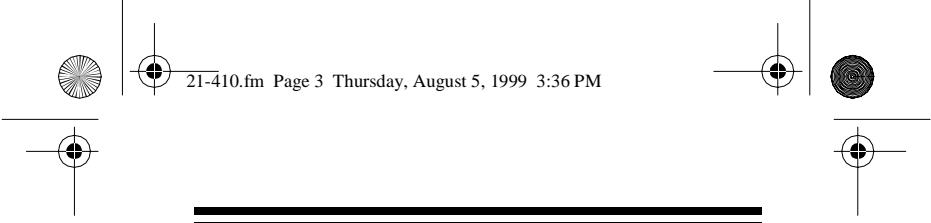
Its features include:

Voice-Actuated or Push-To-Talk Operation — lets you choose to transmit by simply talking or only when you press the transmit button.

Maximum Allowed Output Power — gives you up to $\frac{1}{8}$ of a mile range.

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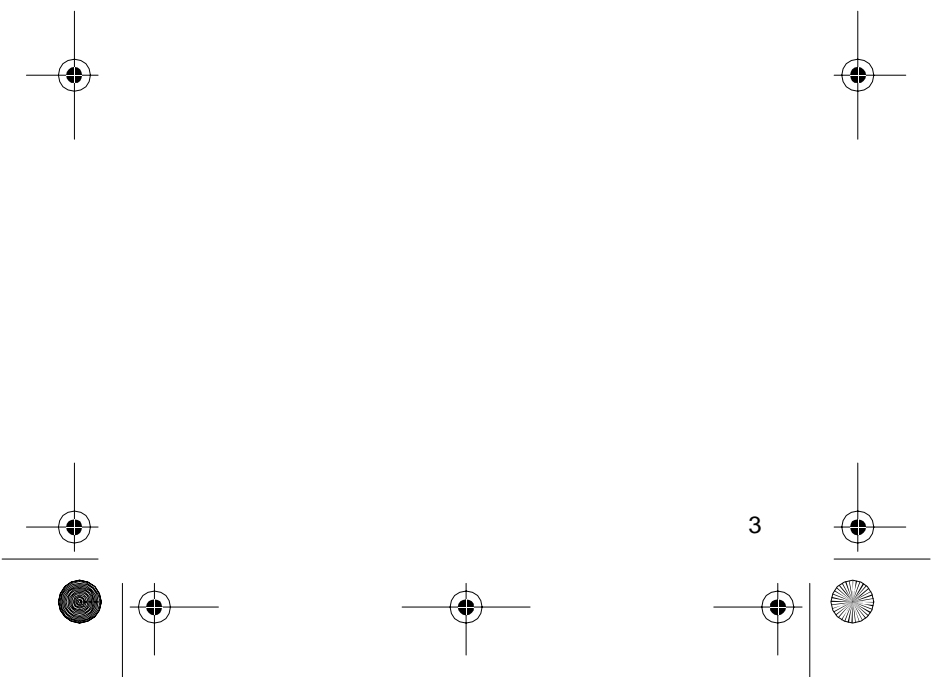




Five Frequencies — let you change channels so you can either communicate with up to five separate stations or to eliminate interference.

Belt Clip — lets you attach the TRC-510 securely to your belt or pocket for hands-free carrying.

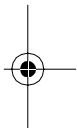
Dual-Conversion Superheterodyne Circuitry — provides clean, clear reception.





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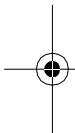


PREPARATION

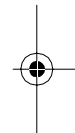
INSTALLING THE BATTERY

Your TRC-510 transceiver uses a standard 9-volt battery. For the longest life, we recommend an alkaline battery such as Radio Shack Cat. No. 23-553.

Follow these steps to install or replace the battery.



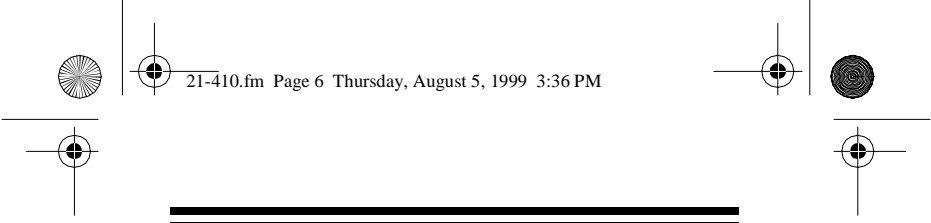
(illus)



1. Remove the battery compartment cover by sliding it in the direction of the arrow.
2. If necessary, remove the old battery and dispose of it properly.
3. Snap a fresh 9-volt battery onto the wired terminals and place the battery in the battery compartment.

Caution: Use only a fresh battery of the required size and type.

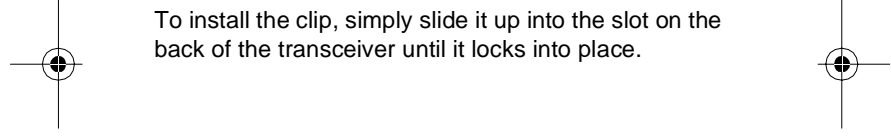




4. Replace the cover.

Replace the battery when your transceiver sounds weak or other transceivers do not receive your transmissions when they are set to the same frequency you are using.

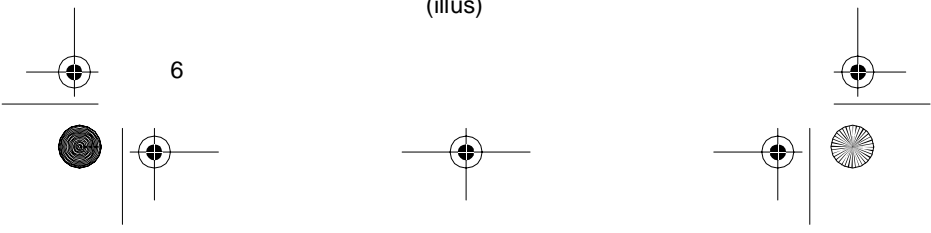
ATTACHING THE BELT CLIP



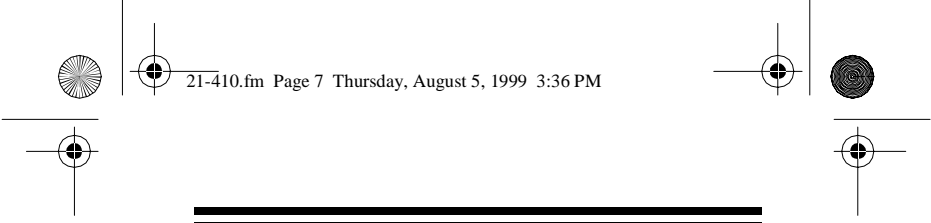
To install the clip, simply slide it up into the slot on the back of the transceiver until it locks into place.

(illus)

To remove the clip, lift up on the locking tab and slide the clip down.

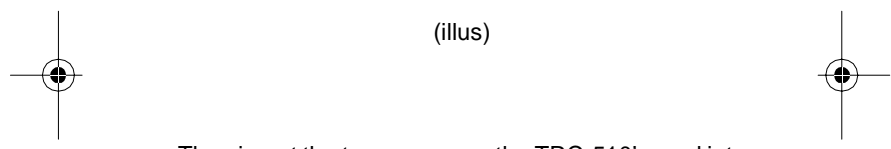


(illus)



CONNECTING THE EARPHONE/MICROPHONE

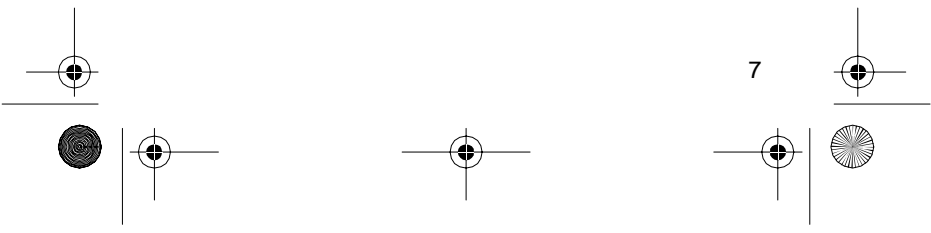
Select the rubber tip (four are supplied) that most comfortably fits your ear and push it onto the earphone/microphone.



(illus)

Then insert the two prongs on the TRC-510's cord into the earphone/microphone.

(illus)



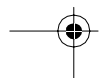
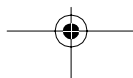
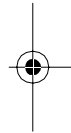
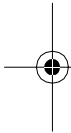


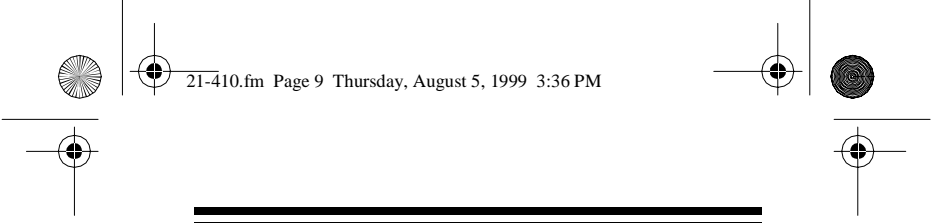
Caution: The prongs are different sizes and fit the ear-
phone/microphone only one way. If you cannot easily
insert the prongs, turn the cord over and try again. Do
not force the connection.

Listening Safely

To protect your hearing, follow these guidelines when
you use an earphone.

- Set the volume to the lowest setting before you
begin listening. After you begin listening, adjust
the volume to a comfortable level.
- Do not listen at extremely high volume levels.
Extended high-volume listening can lead to per-
manent hearing loss.
- Once you set the volume, do not increase it.
Over time, your ears adapt to the volume level,
so a volume level that does not cause discomfort
might still damage your hearing.

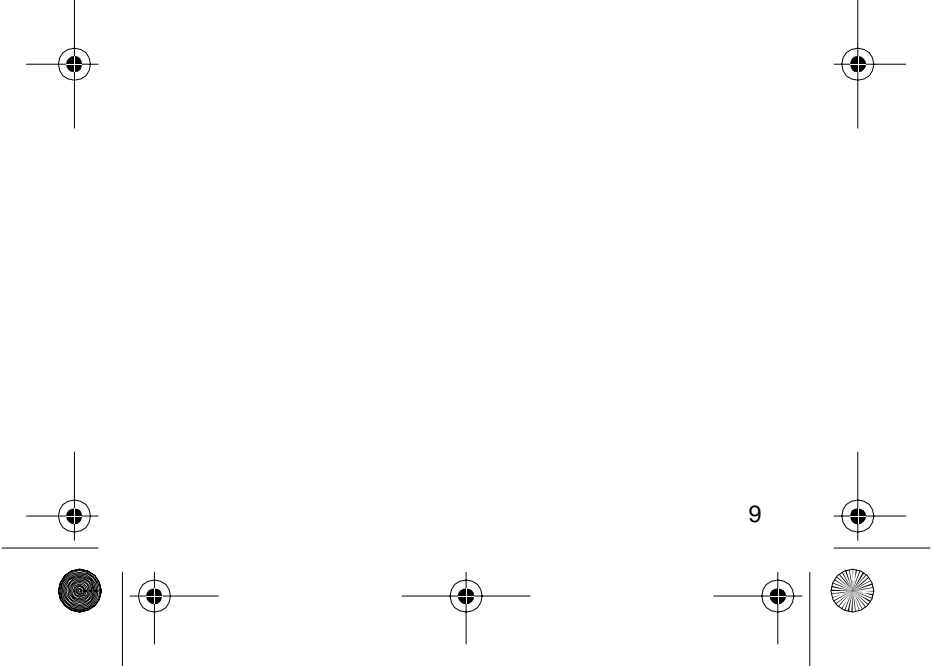




Traffic Safety

Do not wear an earphone while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and is illegal in some areas.

Even though some earphones are designed to let you hear some outside sounds when listening at normal volume levels, they still present a traffic hazard.



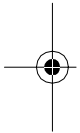


OPERATION



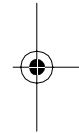
You can communicate with other transceivers that operate on these frequencies:

TRC-510 Channel	Frequency (MHz)
A	49.830
B	49.845
C	49.860
D	49.875
E	49.890



Follow these steps to use the transceiver.

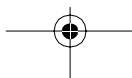
1. Turn the channel selector to the desired channel.

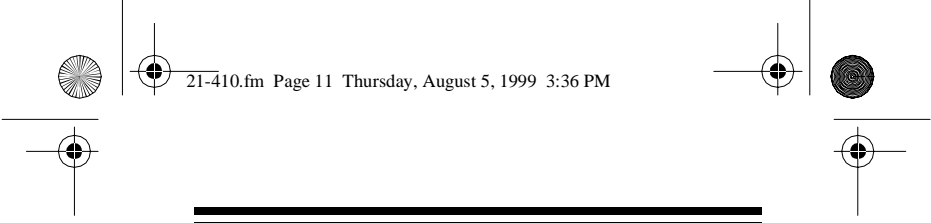


(illus)



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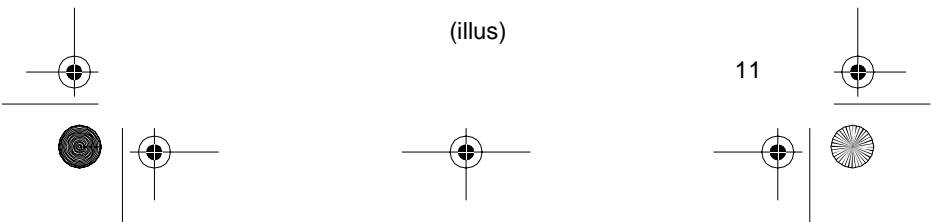
Note: If using another TRC-510, simply set the channel selector on both to the same channel. If using another transceiver, set it to the same frequency as the TRC-510's corresponding channel.

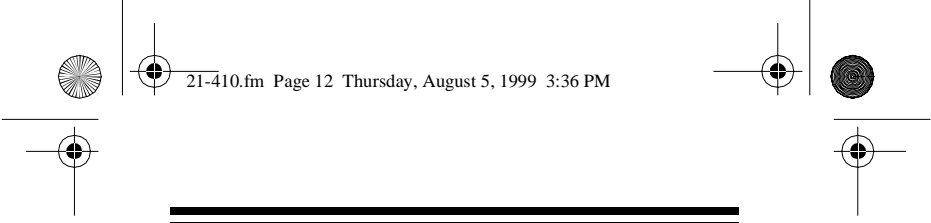
- 2. Set **OFF/PTT/VOX** to either **PTT** (for manual push-to-talk operation) or **VOX** (for voice actuated hands-free operation).



If you set **OFF/PTT/VOX** to **PTT**, you can simply press **PUSH TO TALK** to transmit, and release **PUSH TO TALK** to receive.

If you set **OFF/PTT/VOX** to **VOX**, the TRC-510 automatically begins transmitting when it detects sound, depending on the **VOX HIGH/MID/LOW** setting.





- **HIGH** — for a low-noise area

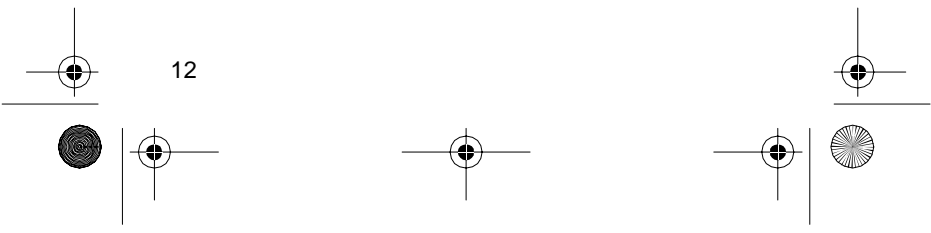
This setting means the transceiver will begin transmitting when it detects any voice or background noise. With this setting, you can speak in a softer tone of voice to make the transceiver transmit.

- **MID** — for a moderate noise area

This setting prevents moderate noises from keeping the transceiver in the transmit mode. With this setting, you can speak in a normal tone of voice to make the transceiver transmit.

- **LOW** — for a noisy area.

This setting prevents any background noise from keeping the transceiver in the transmit mode. With this setting, you must speak louder to make the transceiver transmit.



-
-
3. Set **VOLUME HIGH/MID/LOW** to **LOW**, insert the earphone/microphone into your ear, then set **VOLUME HIGH/MID/LOW** to the most comfortable listening level.

(illus)

4. Set **OFF/PTT/VOX** to **OFF** to turn off the transceiver.

Notes:

- The **TX/BUSY** indicator lights green when your TRC-510 receives a sound, and lights red when it transmits a sound.

(illus)

- The TRC-510 cannot receive while you transmit. To avoid interrupting a reception, wait for the other person to stop talking before you start.

CARE AND MAINTENANCE

Your Radio Shack TRC-510 Voice-Activated 49 MHz FM Audionic Five-Channel Transceiver is an example of superior design and craftsmanship. The following suggestions will help you care for the transceiver so you can enjoy it for years.



Keep the transceiver dry. If it gets wet, wipe it dry immediately. Liquids can contain minerals that can corrode the electronic circuits.



Handle the transceiver gently and carefully. Dropping it can damage circuit boards and cases and can cause it to work improperly.



Use and store the transceiver only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the transceiver away from dust and dirt, which can cause premature wear of parts.

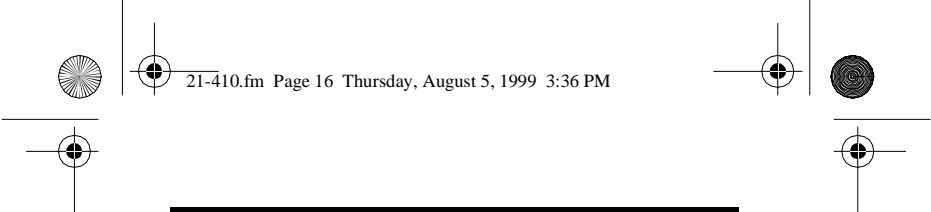


Wipe the transceiver with a damp cloth to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the transceiver.



Use only a fresh 9-volt battery. Always dispose of an old battery promptly and properly.

Modifying or tampering with your transceiver's internal components can cause a malfunction and might invalidate the transceiver's warranty and void your FCC authorization to operate it. If your transceiver is not performing as it should, take it to your local Radio Shack store for assistance.



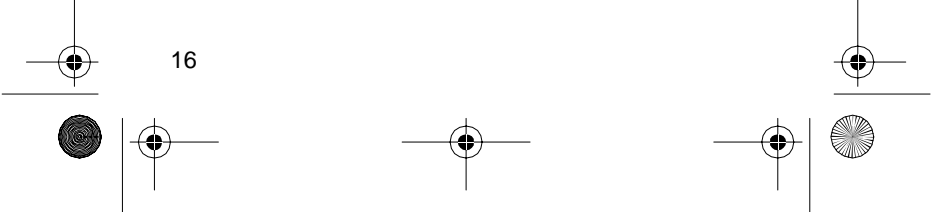
FCC NOTICE

Your transceiver might cause TV or radio interference even when it is operating properly. To determine whether your transceiver is causing the interference, turn off your transceiver. If the interference goes away, your transceiver is causing it.

Try to eliminate the interference by:

- Moving your transceiver away from the receiver.
- Contacting your local Radio Shack store for help.

If you cannot eliminate the interference, the FCC requires that you stop using your transceiver.



SPECIFICATIONS

Operating Frequencies:

Channel A	49.830 MHz
Channel B	49.845 MHz
Channel C	49.860 MHz
Channel D	49.875 MHz
Channel E	49.890 MHz

Input Voltage..... 9 VDC

Current Drain (Stand By) 30 mA MAX
(Receive) 40 mA MAX
(Transmit) 60 mA MAX

Dimensions (HWD)..... $2^{5/8} \times 5^{7/16} \times 1^{7/16}$ Inches
(66.2 × 140 × 30.5 mm)

Sensitivity..... (20 dB Quieting) 1 mV MAX Squelch
(Threshold) 1 mV MAX Modulation

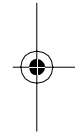
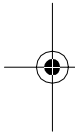
Acceptance Bandwidth (±)7 kHz MIN

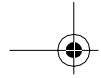
RF power Output 10,000 mV @ 3 meters
(FCC MAX)



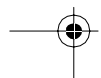
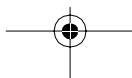
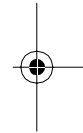
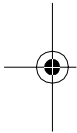
Spurious and Image Rejection 20 dB MIN
 Spurious and Harmonic Emissions 20 dB MIN FM
 Hum and Noise 30 dB MIN
 Audio Distortion 10% MAX
 Frequency Tolerance (0°C to 40°C) (±)2 kHz MAX

Specifications are typical; individual units might vary.
 Specifications are subject to change and improvement
 without notice.





NOTES





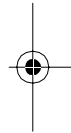
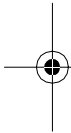
RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 90 days from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

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