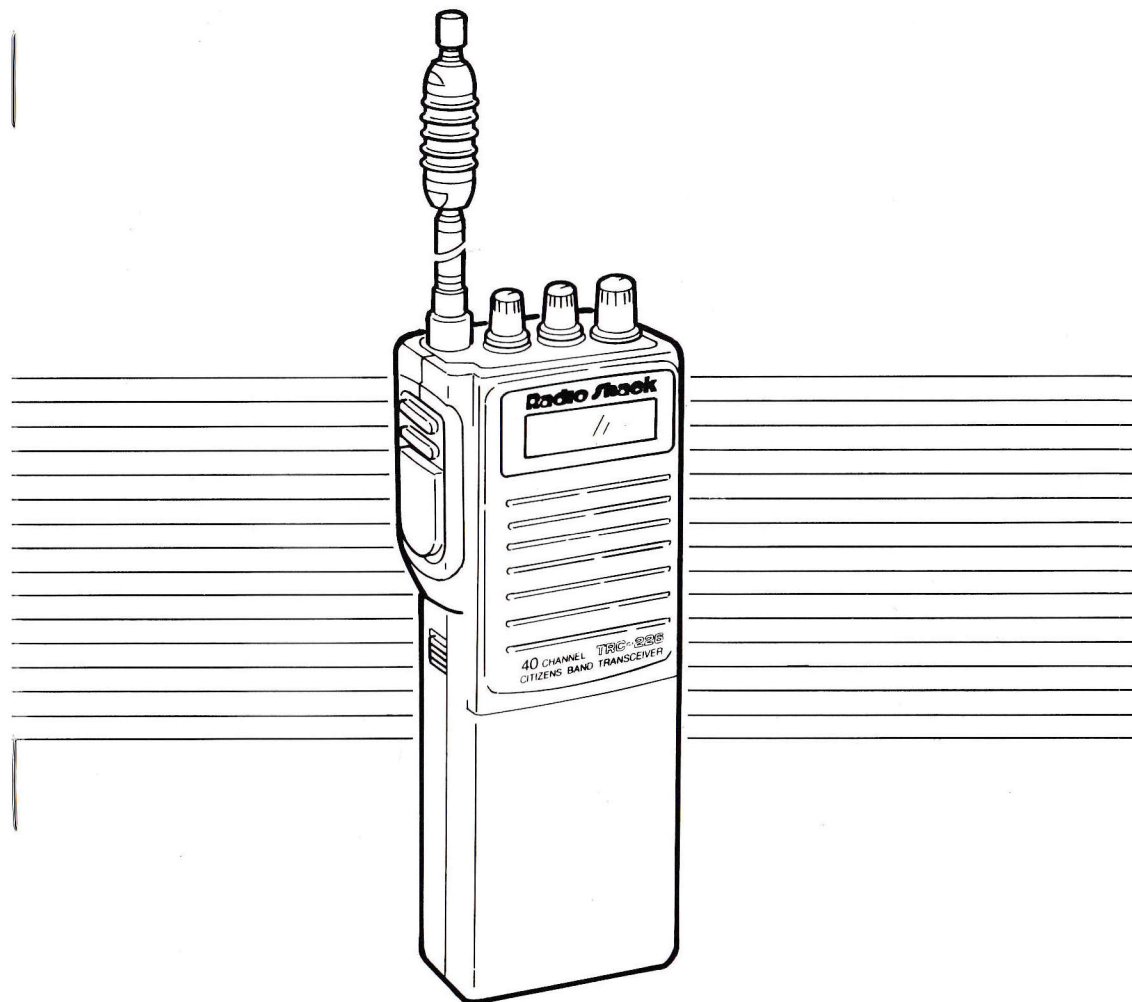


OWNER'S MANUAL

TRC-226

40-CHANNEL CITIZENS BAND TRANSCEIVER

Please read before using.



Cat. No. 21-1665

Radio Shack®

FEATURES

Your Radio Shack TRC-226 40-Channel Citizens Band Transceiver is a portable, two-way radio that you can carry almost anywhere. The digital phase-locked loop synthesizer generates operating frequencies for the 40 channels with the highest degree of accuracy and stability.

The uses for your CB are limited only by your imagination. Use it around the house, in your office, or in your car or boat. You can put your CB to good use on fishing and camping trips, or you can use it in your business for security patrols, or for supervisors or warehouse personnel.

Before you use your CB, read this manual carefully.

Your CB has these advanced features:

Built-In, Ceramic Filters — ensure superior selectivity and freedom from adjacent-channel interference.

Automatic Modulation Control — ensures a constant RF modulation level.

Automatic Gain Control — maintains a constant volume level, regardless of the signal strength.

Automatic Noise Limiter — helps reduce noise caused by nearby electrical equipment, such as motors or automotive ignition systems.

Two Power Levels — lets you save battery power on short-range transmissions.

Power Saver — reduces power consumption by 60% when the CB is not receiving a transmission.

Large, Liquid-Crystal Display — shows the channel number, battery condition, RF power, and received signal strength.

Center-Loaded, Telescoping Antenna with TNC Connector — provides excellent reception and transmission.

No FCC License Required (USA) — You can operate a CB radio in the USA without a license. However, you must know Part 95 of FCC Rules. It explains the proper operation of a Class D citizens' band transceiver. We enclosed a copy of Part 95 with your CB.

For your permanent records, please record your CB's serial number in the space below. The serial number is on the CB's back panel.

Serial Number: _____

This device complies with Part 15 of the FCC Rules. 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.

© 1993 Tandy Corporation
All Rights Reserved.

Radio Shack is a registered trademark used by Tandy Corporation.

PREPARATION

INSTALLING BATTERIES

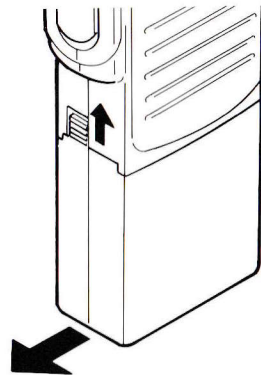
You can power the CB from any of these:

- Alkaline batteries (using the supplied alkaline battery case)
- Rechargeable nickel-cadmium batteries (using the supplied nickel-cadmium battery case — see "Using Rechargeable Batteries")
- A standard AC outlet (using an optional power supply — see "Using External AC/DC Power")
- Your vehicle's battery (using an optional DC adapter — see "Using External AC/DC Power")

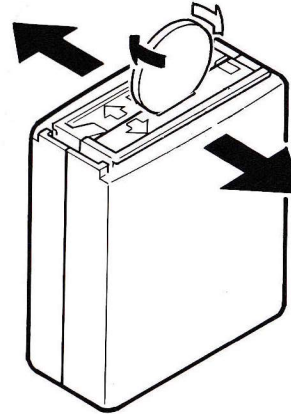
Using Alkaline Batteries

You can operate the CB from eight AA batteries, using the supplied alkaline battery case. For longest operation and best performance, we recommend alkaline batteries (Cat. No. 23-552). Follow these steps to install batteries in the alkaline battery case.

1. Press the battery latch and slide the battery case off the CB.



2. Insert the edge of a coin into the slot on the top of the battery case. Twist the coin to open the case.



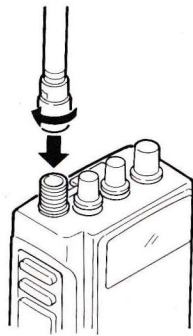
3. Remove old batteries, if necessary, and install eight fresh AA alkaline batteries, observing the polarity marks (+ and -) in the battery case.
4. Press the battery case back together and slide it onto the CB.

Notes:

- Never mix different types of batteries, and never mix old and new batteries.
- Do not put alkaline batteries in the rechargeable battery case.

CONNECTING AN EXTERNAL ANTENNA

You must connect an antenna to your CB before you transmit. Your CB comes with a telescoping antenna that is ideal for most applications. The CB's TNC antenna connector makes it easy to connect other types of antennas. Radio Shack stores sell various antennas.



To use the supplied antenna or any other antenna that connects directly to the CB, simply thread it onto the antenna connector, as shown.

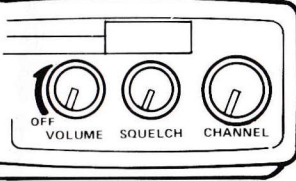
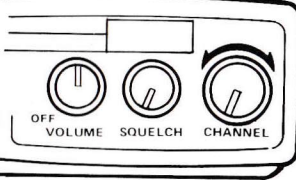

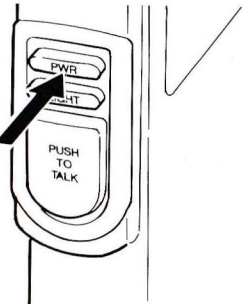
To use a base-station or mobile antenna, attach the appropriate connector adapter to the end of the antenna cable. Then, thread it onto the CB's antenna connector.

Warning: When installing or removing an outdoor antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the power line, contact with the antenna, mast, cable, or guy wires can cause electrocution and death! Call the power company to remove the antenna. Do not attempt to do so yourself.

OPERATION

TRANSMITTING AND RECEIVING

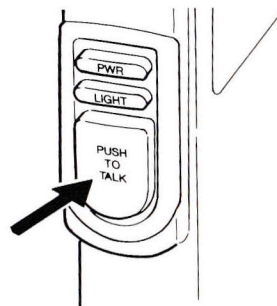
Follow these steps to operate your CB.

<p>1. Turn on the power by turning VOLUME clockwise.</p>	 A close-up diagram of the control panel showing three knobs: VOLUME, SQUELCH, and CHANNEL. An arrow points clockwise from the 'OFF' position to the VOLUME knob.
<p>2. Set the CHANNEL control to the desired channel.</p>	 A close-up diagram of the control panel showing the VOLUME, SQUELCH, and CHANNEL knobs. An arrow points to the CHANNEL knob, indicating it should be turned to a specific position.
<p>3. Fully extend the telescoping antenna and hold your CB so the antenna is vertical.</p> <p>Note: Failing to fully extend the telescoping antenna reduces the CB's efficiency, and might damage your CB.</p>	 A diagram of the telescoping antenna with an upward-pointing arrow indicating it should be fully extended.
<p>4. Press PWR to set the power output to LOW or HI. LOW PWR or HI PWR appears on the display to indicate the power level.</p> <p>To transmit to nearby units, press PWR to set the power output to LOW. This conserves battery power by transmitting at a lower power level. If the other CB is farther away, or if the person using it complains of noise, set PWR to HIGH.</p>	 A diagram of the front of the CB showing the PWR button and a 'PUSH TO TALK' button. An arrow points to the PWR button.

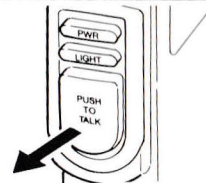
5. To transmit, press **PUSH TO TALK**. The **RF OUT** meter on the display shows the output level.

Hold your CB about 2 to 3 inches from your mouth and speak slowly and clearly in a normal tone of voice.

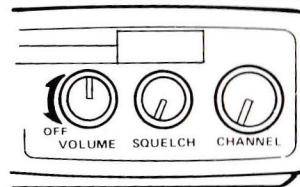
Note: A built-in automatic modulation circuit adjusts the microphone's sensitivity to allow for a wide variety of voice levels.



6. To receive a message, release **PUSH TO TALK**. The **SIGNAL** meter in the display shows the signal level.

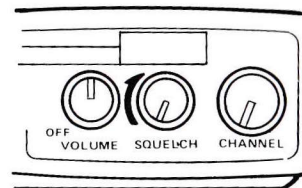


7. Adjust **VOLUME** for a comfortable listening level.



8. Adjust **SQUELCH** to cut out background noise between transmissions. To do this, wait until there is no signal on the channel. Then, slowly turn **SQUELCH** clockwise until the background noise stops.

Note: Do not turn **SQUELCH** too far clockwise because you might cut out weak signals, too.



USING THE LIGHT

Press **LIGHT** to light the display.

OPERATIONAL HINTS

Your CB's range varies depending on many conditions. Factors such as antenna type and position, terrain, and battery condition all affect range. Buildings absorb transmitted signals and, if they contain metal, might completely block them. Trees and heavy cloud formations have a similar effect, though not as severe. If you are near a lake or the ocean, you might get remarkable range.

To ensure the maximum range, always keep batteries fully charged in your CB. As the voltage decreases it directly affects the range.

POWER SAVER

Your CB features a special power-saver circuit. If the CB does not receive a transmission for more than 1 minute, the circuit sets the CB to standby. During standby, the CB uses only 40% of the power consumed during regular operation.

When the CB activates the power saver, **BATT SAVE** appears on the display.

The CB returns to normal power mode when it receives a transmission, or when you turn **SQUELCH** counterclockwise, select a channel, press **POWER**, press **LIGHT**, or press **PUSH-TO-TALK**.

USING EXTERNAL AC/DC POWER

USING AC POWER

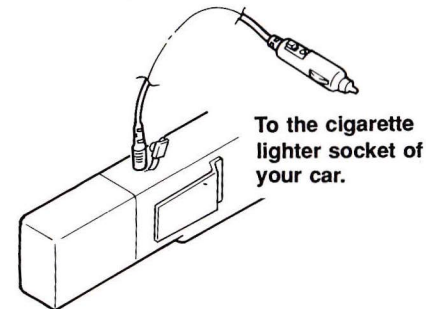
To power the CB from AC power, you need to use Radio Shack's 12-volt power supply (Cat. No. 22-120).

You need the following items to operate your CB from AC power:

- 12-volt power supply (Cat. No. 22-120)
 - One 5.5mm barrel-type DC power plug (Cat. No. 274-1569)
 - Red wire
 - Black wire
1. Make a power cable by connecting the red wire to the plug's tip and the black wire to the plug's outer barrel. If you do not know how to make such a cable, have a qualified technician make the cable for you.
 2. Connect the red wire to the power supply's + terminal and connect the black wire to the power supply's - terminal.
 3. Turn on the power supply and use a voltmeter to be sure the plug is wired with the tip positive, and the outer barrel negative. Then turn off the power supply.
 4. Insert the plug into the CB's **PWR** jack.
 5. Turn on the power supply.
 6. When you finish using AC power, turn off the power supply. Then disconnect the plug from the **PWR** jack.

USING DC POWER

You can power your CB from your vehicle's cigarette-lighter socket if your vehicle has a 12-volt negative-ground electrical system. To do this, you need Radio Shack's 12-volt DC cord (Cat. No. 270-1533).



Follow these steps to use DC power.

1. Insert the cord's barrel plug into your CB's **PWR** jack.

Caution: Never insert the plug into the **CHG** jack.

2. Plug the other end of the cord into your vehicle's cigarette-lighter socket.

Note: If the CB does not operate properly when you use the lighter cord, unplug the cord from the lighter socket and clean any ashes or other debris from the socket. If your CB still does not work, check the fuse in the DC cord and replace it, if necessary. Use only the same size and type fuse as was originally in the cord.

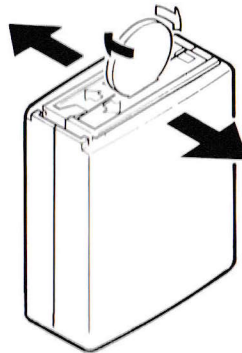
3. When you finish using the lighter cord, disconnect it from the cigarette-lighter socket. Then disconnect the cord from your CB.

USING RECHARGEABLE BATTERIES

INSTALLING RECHARGEABLE BATTERIES

You can operate the CB from 10 rechargeable nickel-cadmium AA batteries (Cat. No. 23-125), using the supplied rechargeable battery case. Follow these steps to install batteries in the rechargeable battery case.

1. Insert the edge of a coin into the slot on the top of the battery case. Twist the coin to open the case.



2. Install 10 AA rechargeable batteries, observing the polarity marks (+ and -) in the battery case.
3. Replace the battery case.
4. Charge the batteries. See "Charging Nickel-Cadmium Batteries."
Caution: Never try to recharge non-rechargeable batteries. Non-rechargeable batteries become very hot and can explode if you try to do so.
5. Slide the battery case onto the CB.

Note: You can recharge the batteries with the battery case attached to the CB. However, you cannot operate your CB while you recharge the batteries.

CHARGING NICKEL-CADMIUM BATTERIES

After you install rechargeable batteries in the supplied rechargeable battery case, use Radio Shack's Battery Charger for Walkie-Talkies (Cat. No. 21-516) to charge the batteries.

Caution: Using a power adapter to charge the batteries might damage the battery case or adapter.

Plug the charger's barrel plug into the CHG jack, and connect the charger to a standard AC outlet.

Warning: Never try to recharge alkaline or other non-rechargeable batteries. They might explode.

Notes:

- Be sure to turn off the CB before you charge nickel-cadmium batteries.
- Do not operate the CB while you recharge the batteries.
- Nickel-cadmium batteries typically are fully discharged when you first purchase them. You must charge them before you use the CB.
- Charging time is 15 to 18 hours the first time. Subsequent chargings take about 8 to 10 hours.

Cautions:

- To prevent permanent nickel-cadmium power loss, never charge the batteries in an area where the temperature is above about 90°F. Also, if you use an external charger, follow the charger's instructions and do not overcharge the batteries.
- Never use any adapter other than the recommended adapter (Cat. No. 21-516) to recharge the batteries in the rechargeable battery case. Even adapters with the same voltage and current ratings could permanently damage your CB or the batteries.

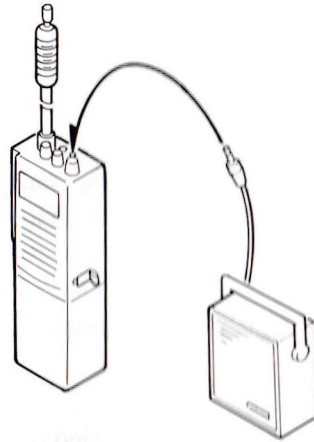
Checking the Battery Level

Press **LIGHT** to check the batteries. If **LOW BATT** appears in the display, you need to recharge or replace the batteries.

CONNECTING OTHER OPTIONS

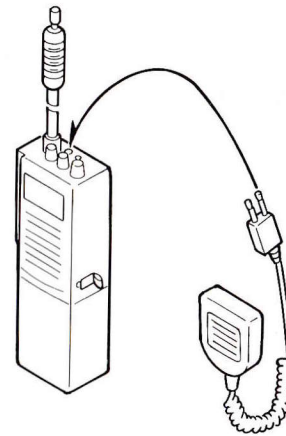
USING AN EXTERNAL SPEAKER

In a noisy area, an external speaker, positioned in the right place, might provide more comfortable listening. Radio Shack stores sell an extension speaker (Cat. No. 21-549) and an amplified communications extension speaker (Cat. No. 21-541). Plug the speaker cable's 1/8-inch (3.5 mm) mini plug into the CB's **SP** jack. This disconnects the internal speaker.



CONNECTING AN EXTERNAL SPEAKER/MICROPHONE

You can use an external speaker/microphone (Cat. No. 19-310) so you can keep the CB on your belt during operation. Plug the speaker/microphone's connector into the CB's **MIC** and **SP** jacks.

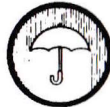


CARE AND MAINTENANCE

To be safe and sure:

1. You should never open the case of your CB.
2. Never change or replace anything in your CB.

Your Radio Shack TRC-226 40-Channel Citizens Band Transceiver is an example of superior design and craftsmanship. The following suggestions will help you care for the CB so you can enjoy it for years.



Keep the CB dry. If it does get wet, wipe it dry immediately. Liquids can contain minerals that can corrode the electronic circuits.



Use only fresh batteries of the recommended size and type. Always remove old or weak batteries. They can leak chemicals that destroy electronic circuits.



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



Use and store the CB in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.



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



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

Modifying or tampering with the CB's internal components can cause a malfunction and might invalidate the CB's warranty and void your FCC authorization to operate it. If your CB is not operating as it should, take it to your local Radio Shack store. Our personnel can help you and arrange for service, if needed.

INTERFERENCE WITH OTHER APPLIANCES

Your CB might cause TV or radio interference even when it is operating properly. To determine whether your CB is causing the interference, turn off your CB. If the interference goes away, your CB is causing the interference. Try to eliminate the interference by:

- Moving your CB 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 CB.

SPECIFICATIONS

RECEIVER

Frequency Coverage	26.965 to 27.405 MHz
Sensitivity	0.5 μ V for 10 dB (S+N)/N
Adjacent Channel Rejection	70 dB
Audio Distortion at 1 kHz	Less than 10% at 0.6 watts output (8 ohm)
Intermediate Frequency:	
1st	10.695 MHz
2nd	455 kHz
Squelch	Adjustable from 0.4 μ V
Current Drain:	
At Squelch On	80 mA
At Maximum Output.....	300 mA

TRANSMITTER

Frequency Coverage	26.965 to 27.405 MHz
Power Input:	
HI Position	5 watts
LOW Position	2.0 watts
Power Output:	
HI Position	3.5 watts
LOW Position	1.0 watt
Modulation	90% to 100%
Spurious Output.....	-60 dB or better
Type of Emission	A3
Frequency Tolerance	0.002%
Current Drain (with modulation):	
HI Position	1100 mA
LOW Position	800 mA

GENERAL

Power Requirements	12 volts DC
Speaker	1 3/4 inch (4.5 cm) permanent magnet dynamic type
Microphone	Built-in electret-condenser type with FET amplifier
External Mic Jack	Sub mini type
External Speaker Jack.....	Miniature type
Operating Temperature	-18°C to +60°C
Size	6 1/2 \times 2 1/4, 2 5/8 \times 1 3/8, 1 1/2 Inches HWD (165 \times 58/65 \times 34/37 mm) with 8 battery case
Weight	10.6 oz. (300g) with 8 battery case

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.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We Service What We Sell

RADIO SHACK
A Division of Tandy Corporation
Fort Worth, Texas 76102