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> [VOOPON T20 Rechargeable FRS Two-Way Radios User Manual](#)

## VOOPON T20

# VOOPON T20 Rechargeable FRS Two-Way Radios User Manual

Model: T20 | Brand: VOOPON

## 1. INTRODUCTION

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This manual provides detailed instructions for the safe and efficient operation of your VOOPON T20 Rechargeable FRS Two-Way Radios. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage. Keep this manual for future reference.

## 2. PACKAGE CONTENTS

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Verify that all items listed below are included in your package:

- 4 x VOOPON T20 Two-Way Radios
- 4 x Earpieces
- 4 x Belt Clips
- 4 x Lanyards
- 4 x Lithium Batteries (pre-installed or separate)
- 4 x Type-C USB Charging Cables
- 2 x USB Wall Chargers
- 1 x User Manual (this document)



Figure 2.1: Contents of the VOOPON T20 package.

### 3. PRODUCT OVERVIEW

Familiarize yourself with the components of your VOOPON T20 two-way radio.

# VOOPON T20 WALKIE TALKIE



Figure 3.1: VOOPON T20 Walkie Talkie Components.

- **Power/Volume Switch:** Rotate to turn the radio on/off and adjust volume.
- **Antenna:** For transmitting and receiving signals.
- **PTT (Push-to-Talk) Button:** Press and hold to transmit your voice.
- **Channel+ Button (Short Press):** Changes to the next higher channel.
- **Monitor Button (Long Press):** Temporarily disables squelch to listen for weak signals.
- **Channel- Button (Short Press):** Changes to the next lower channel.
- **Scan Button (Long Press):** Activates/deactivates channel scanning.
- **Speaker:** Outputs received audio.
- **Mic Hole:** Captures your voice for transmission.
- **Audio Jack:** Connects earpieces or other audio accessories.
- **USB Charging Port:** For charging the radio's battery.

## 4. SETUP

### 4.1 Battery Installation and Charging

1. Ensure the radio is powered off.

2. Locate the battery compartment on the back of the radio.
3. Insert the provided lithium battery, ensuring correct polarity.
4. Close the battery compartment securely.
5. Connect the Type-C USB charging cable to the radio's USB charging port and the other end to a USB wall charger or a compatible power source (e.g., power bank, PC, car charger).
6. The charging indicator will show the charging status. A full charge typically takes approximately 4 hours.



Figure 4.1: USB-C Direct Charging options for the VOOPON T20.

**Note:** A low voltage alert will sound when the battery is low, indicating it needs recharging. The radio offers up to 96 hours of standby time and 8-12 hours of continuous usage on a full charge.

## 4.2 Attaching Accessories

- **Belt Clip:** Align the belt clip with the designated slots on the back of the radio and slide it into place until it clicks securely.
- **Lanyard:** Thread the lanyard through the loop on the top or side of the radio for convenient carrying.
- **Earpiece:** Insert the earpiece plug into the audio jack on the side of the radio.

## 5. OPERATING INSTRUCTIONS

## 5.1 Power On/Off and Volume Adjustment

Rotate the Power/Volume Switch clockwise to turn the radio on. Continue rotating to increase the volume. Rotate counter-clockwise to decrease the volume and turn the radio off.

## 5.2 Channel Selection

The VOOPON T20 features 22 FRS channels. To change channels:

- **Short Press "Channel+":** Moves to the next higher channel.
- **Short Press "Channel-":** Moves to the next lower channel.

Channels are pre-programmed with CTCSS/DCS codes for secure communication.

## 5.3 Transmitting and Receiving (PTT)

- To transmit, press and hold the **PTT button**. Speak clearly into the microphone.
- Release the PTT button to stop transmitting and listen for a response.
- Ensure you are on the same channel as the person you wish to communicate with.

## 5.4 VOX Function (Hands-Free Operation)

The VOX (Voice Operated Exchange) function allows for hands-free communication. When activated, the radio will automatically transmit when it detects your voice, without needing to press the PTT button.

# VOX

The VOX feature enables hands free conversations without using PTT: just speak in the direction of the microphone and the communication will be automatically activated. The VOX sensitivity can be adjusted in 5 different levels (1...5) through the programming software: Level 2 is set by default and has the lowest VOX sensitivity, 5 is the highest one.



Figure 5.1: VOX function for hands-free communication.

The VOX sensitivity can be adjusted in 5 levels (1-5) via programming software. Level 2 is the default setting, offering a balanced sensitivity. Level 5 is the lowest sensitivity, requiring louder speech to activate transmission.

## 5.5 Monitor Function

Long press the "Monitor" button (Channel+) to temporarily disable the squelch function. This allows you to listen to very weak signals or monitor a channel for activity without the squelch cutting out faint transmissions.

## 5.6 Scan Function (Autoscan Frequency)

The scan function allows the radio to automatically search for active channels.

- To activate scanning, long press the "Scan" button (Channel-). The radio will cycle through channels until an active signal is detected.
- To stop scanning, long press the "Scan" button again.

# AUTOSCAN FREQUENCY

On the 16th channel, press and hold the PTT and Channel Down (-) to turn on the radio and turn the scanning function on or off. The scanning function can search and stop on a busy channel



Figure 5.2: Autoscan Frequency in operation.

**Note:** On the 16th channel, pressing and holding the PTT and Channel Down (-) buttons simultaneously while turning on the radio can activate or deactivate the scanning function.

## 6. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Do not use harsh chemicals or abrasive cleaners.
- **Battery Care:** To prolong battery life, avoid fully discharging the battery frequently. Recharge the battery when the low voltage alert sounds. Store radios with partially charged batteries if not used for extended periods.
- **Storage:** Store the radios in a cool, dry place away from direct sunlight and extreme temperatures.
- **Antenna:** The short antenna design is robust, but avoid bending or twisting it excessively to prevent damage.

# SHORT ANTENNA

Short antenna is not easy to break



Figure 6.1: Durable short antenna design.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Battery is dead or not properly installed.	Recharge the battery. Ensure the battery is correctly installed.
Cannot transmit or receive	Incorrect channel selected. Out of range. Battery low.	Verify both radios are on the same channel. Move closer to the other radio. Recharge battery.
Poor audio quality / Static	Out of range. Obstructions. Interference. Squelch level too high.	Move closer. Change location. Adjust squelch (if programmable).
VOX not activating	VOX sensitivity too low.	Adjust VOX sensitivity via programming software (if applicable). Speak louder.

## 8. SPECIFICATIONS

Feature	Detail
Model Number	T20
Brand	VOOPON
Channels	22 FRS Channels
Frequency Range	FRS
Battery Capacity	1500 mAh Lithium Battery
Charging Port	Type-C USB
Charging Time	Approx. 4 hours
Standby Time	Up to 96 hours
Continuous Usage	8-12 hours
Dimensions (H x W x D)	5.35 x 2.2 x 0.83 inches (135mm x 54mm x 21mm)
Weight	Approx. 1.9 pounds (for the 4-pack, individual unit weight is 108g)
Talking Range (Open Areas)	2-3 kilometers (1.2-1.8 miles)
Talking Range (Urban Areas)	0.5-1 kilometer (0.3-0.6 miles)
Special Features	VOX, Autoscan, Noise Reduction, Lightweight, Rechargeable
Water Resistance Level	Not Water Resistant

## 9. WARRANTY INFORMATION

The VOOPON T20 Two-Way Radios come with a 30-day warranty from the date of purchase. This warranty covers manufacturing defects. Please retain your proof of purchase for warranty claims. Damage resulting from misuse, accidents, or unauthorized modifications is not covered.

## 10. CUSTOMER SUPPORT

For any questions, technical assistance, or warranty inquiries, please contact VOOPON customer support through the retailer's platform where the product was purchased. Please provide your product model number (T20) and purchase details for efficient service.