

Operation instructions

USER'S MANUAL



Professional wireless intercom
PROFESSIONAL FM TRANSCEIVER

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Key Introduction

- **Keypad Lock:** Long - press for locking and unlocking functions. After locking, short - pressing CH+ and CH- has no effect.
- **PTT:** Transmit Key.
- **CH+/CH-:** Have two functions: short press and long press. Short - pressing CH+ is the channel up key, short - pressing CH- is the channel down key. Long - press functions include: Off, Scan, Voice -activated, Alarm, Monitor (Select the required function via programming software).



- **Power Switch:** Long - press for 2 seconds to power on and broadcast voice simultaneously, long - press again to power off.

- **Volume +:** Short - press to increase volume;

Volume -: Short - press to decrease volume.

Note: The long - press time is 2 seconds.

II. Function Operations

Decoding Function

Can decode the transmitter frequency and sub - audio code. Power off the walkie - talkie on Channel 1, then press and hold “Volume +” and “Power Switch” to power on. The green light flashes to enter the decoding mode. When the transmitter transmits and the walkie - talkie receives the signal, there will be a “beep” prompt, indicating successful decoding. You can switch to the next channel to decode new signals. After decoding, power off and restart to save the decoded channel frequency.

Cloning Function

Tune the walkie - talkie to Channel 2 and power it off. Then press and hold “Volume +” and “Power Switch” to power on. The green light flashes to enter the cloning mode. Place the cloning device aside. Power on the device to be cloned by pressing and holding “Volume +” and “Power Switch” on Channel 2, then press the PTT key for one second and release it. The transmit red light turns on. Wait until the transmit red light goes off, and the data transmission is completed. Power off both walkie - talkies and restart to complete the cloning. The device to be cloned and the cloning device have exactly the same channel frequencies and functions. Multiple walkie - talkies can be cloned simultaneously.

CH+ CH -: Long - press functions: Off, Scan, Voice - activated, Alarm, Monitor. The required functions need to be selected through the programming software.

- **Off:** Long - pressing has no function.
- **Scan:** Long - press to enable the scan mode, which automatically detects the activity of channels 1 to 16 defined as scannable channels (the programming software can define whether each channel is scannable or not). When the scanned channel has a signal, the walkie - talkie will automatically stay on that channel for communication. To stop scanning: Long - press again to turn off, that is, exit the scan mode.
- **Alarm:** When there is a transmit frequency on the current channel, long - press to activate the remote alarm, and the device will sound an alarm at the same time. To exit the remote alarm, press the PTT to exit the alarm mode.

- **Monitor:** Check if someone is talking on the selected channel. If there is no signal, there will be a “rustling” sound.

Voice - activated Transmission

If the walkie - talkie is set to have the voice - activated function enabled by the programming software, long - press to activate the voice - activated function.

Voice - activated gain level: When the sound level is higher than the set voice - activated gain level, VOX transmits automatically. The gain level can be adjusted to level 1 - 9.

(Note: The voice - activated gain level must be set through the programming software)

Power - saving Function

- **Power - saving On:** Automatically enter the power - saving state if there is no operation for 10seconds.
- **Power - saving Off:** The walkie - talkie does not save power.

Battery Voltage Detection

Low - battery Alarm: When the voltage is below a certain level, a low - battery voice prompt will be given approximately every 20S.

Time - out Timer

The transmit time can be set in the programming software to have a timing restriction of 30s - 300 s.

Chinese/English Switching

Chinese, English, and Off can be set in the programming software.

Sub - audio QT/Digital Sub - audio DQT

The programming software can be used to set sub - audio QT/digital sub - audio DQT on the channels of the walkie - talkie.

Frequency DQT Signaling

When a channel is set with sub - audio or digital sub - audio DQT signaling, the squelch can only be opened when a signal with the same sub - audio or digital sub - audio is received. If different QT/ DQT are used for calling on the same channel, the squelch cannot be opened, and only the green light is on.

The list of sub - audio QT/digital sub - audio DQT is as follows:

67.0	69.3	71.9	74.4	77.0	79.7	82.5	85.4	88.5	91.5
94.8	97.4	100.0	103.5	107.2	110.9	114.8	118.8	123.0	127.3
131.8	136.5	141.3	146.2	151.4	156.7	159.8	162.2	165.5	167.9
171.3	173.8	177.3	179.9	183.5	186.2	189.9	192.8	196.6	199.5
203.5	206.5	210.7	218.1	225.7	229.1	233.6	241.8	250.3	254.1

Digital sub - audio DQT: (166 in total)

D023 N	D025 N	D026 N	D031 N	D032 N	D043 N	D047 N	D051 N	D054 N	D065 N
D071 N	D073 N	D074 N	D114 N	D115 N	D116 N	D125 N	D131 N	D132 N	D134 N
D143 N	D152 N	D155 N	D156 N	D162 N	D165 N	D169 N	D172 N	D174 N	D205 N
D223 N	D226 N	D231 N	D233 N	D234 N	D236 N	D243 N	D244 N	D245 N	D251 N
D261 N	D263 N	D265 N	D269 N	D271 N	D311 N	D313 N	D314 N	D323 N	D324 N
D331 N	D334 N	D343 N	D346 N	D351 N	D354 N	D361 N	D362 N	D364 N	D365 N

D371 N	D411 N	D412 N	D413 N	D423 N	D431 N	D432 N	D434 N	D443 N	D445 N
D451 N	D454 N	D461 N	D462 N	D464 N	D465 N	D469 N	D511 N	D513 N	D514 N
D523 N	D524 N	D531 N	D532 N	D534 N	D543 N	D546 N	D551 N	D554 N	D561 N
D562 N	D564 N	D565 N	D569 N	D611 N	D612 N	D613 N	D623 N	D624 N	D631 N
D632 N	D643 N	D644 N	D645 N	D651 N	D654 N	D655 N	D661 N	D662 N	D664 N
D665 N	D669 N	D711 N	D713 N	D714 N	D723 N	D724 N	D731 N	D732 N	D734 N
D743 N	D744 N	D745 N	D751 N	D754 N					

Scramble Function

In the walkie - talkie programming software menu, if "Yes" is set in the scramble option, the scramble function is turned on; if "No" is set, it is turned off. If one side turns on the scramble and the other does not, the voice during communication will be like a robot's voice; if both sides turn it on, the voice will be normal, preventing third - party monitoring.

Wide/Narrow Band Selection (25.0KHz/12.5KHz)

This function is set to wide band by default at the factory. The "Wide/Narrow" option in the programming software can be used to set whether the channel works in wide band (25.0KHz) or narrow band (12.5KHz).

Noise Reduction Function (Model - optional)

Turning on the noise reduction function can shield all noise and make the communication voice clearer. In the programming software, select "Yes" in the noise reduction option to turn on the noise reduction function for the current channel, and select "No" to turn it off.

TYPE - C Charging Function

Open the headphone cover and insert the TYPE - C charging cable to charge the device. The blue light is on during charging, and the green light is on when fully charged. Note: Please turn off the walkie - talkie when charging. If the green light is on right after inserting the charging cable, check whether the battery is in good contact with the device's power socket.

III. Technical Parameters General Specifications:

Frequency Range	UHF 400 - 480MHz
Stored Channels	16 groups
Operating Voltage	DC 3.7V
Frequency Stability	$\pm 2.5\text{ppm}$
Operating Temperature	-20°C ~ +50°C
Operating Mode	Same - frequency simplex
Antenna Impedance	50 Ω

Transmit:

Output Power	$\leq 5\text{W}$
Transmit Current	$\leq 1500\text{mA}$
Maximum Frequency Deviation (Wide Band)	$\leq 5\text{KHz}$
Spurious Power	$\leq 7.5\mu\text{W}$
Adjacent Channel Power	$\leq -65\text{dB}$
Signal - to - Noise Ratio (Wide Band)	$\geq -45\text{dB}$
Sub - audio/Digital Sub - audio Deviation (Wide Band)	$0.7 \pm 0.1\text{KHz}$
Modulation Sensitivity	8 - 12mV

Receive:

Sensitivity	-122dBm (12dB SINAD)
Audio Power	$\geq 350\text{mW}$
Audio Distortion	$<10\%$
Intermodulation (Wide Band)	$\geq 55\text{dB}$
Adjacent Channel Selectivity (Wide Band)	$\geq 55\text{dB}$
Spurious Suppression	$\geq 55\text{dB}$
Receive Current	$\leq 450\text{mA}$

Warranty Card

Sales Information

- Dealer (seal valid):
- Address:
- Contact phone:

Product Information

- Product model:
- Serial number:
- Purchase date:

User Information

- User name:
- Contact phone:
- Address:

Important Reminder

This warranty card is an important certificate for the end - user to enjoy the warranty service of our company. Please keep it properly.

Warranty Terms

1. The warranty period of this product starts from the sales date (based on the date on the sales invoice). The main unit is warranted for 12 months, and accessories are warranted for 6 months
2. During the warranty period, the logo or product serial number must not be torn off.

3. This warranty card is valid only when stamped by the dealer authorized by our company and filled out completely.

The following situations are not covered by the free warranty service of this product, and repair fees will be charged:

1. Normal wear and tear;
2. Beyond the product warranty period;
3. Damage caused by not using, maintaining, or storing the product in accordance with the product instruction manual;
4. Damage caused by repair, disassembly, etc. by non - authorized personnel of our company;
5. Without a valid warranty card and valid invoice (except those that can prove the product is within the warranty period);
6. Arbitrarily altered product warranty card;
7. The product model or serial number on the warranty card does not match the product;
8. Damage caused by force majeure.