

# **Thank You!**

Thank you very much for choosing our radios for your communication. This radio is a multifunctional FM handheld Two Way Radio. It combines the latest communication technology and a rugged mechanical framework. Whether you are a professional who needs to keep in touch with the event team (such as pastoral, self-driving, hunting, exhibition, trade fair or hotels) or a casual user who simply wants to communicate with friends and keep in touch with families, this radio will bring convenience to your work, life, and leisure.

Please read all information carefully before using our radio to avoid personal injury or

property damage due to improper operation.

## **NOTICE:**

Changes or modifications to this equipment without our express permission may void your authority to operate the equipment. Your radio is set up to send a modulated signal at a specified frequency. It is illegal to change or adjust settings beyond the radio limitation. Any adjustments to the radio must be made by a qualified technician.

## **WARNING&PRECAUTIONS**

1. Refer service to qualified technicians only.
2. Do not disassemble or modify the radio for any reason.
3. Do not expose the radio under direct

sunlight long time or to extremely hot condition.

4. Do not place the radio on the unstable surface.

5. Keep the radio out of dust, moisture, and water.

6. Do not operate the radio or charge the battery pack under explosive conditions.

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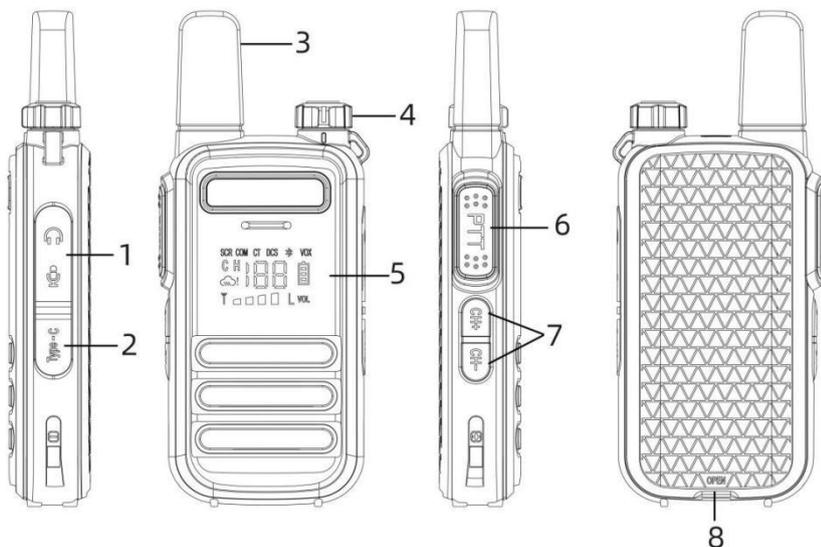
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# Packing with Walkie Talkie

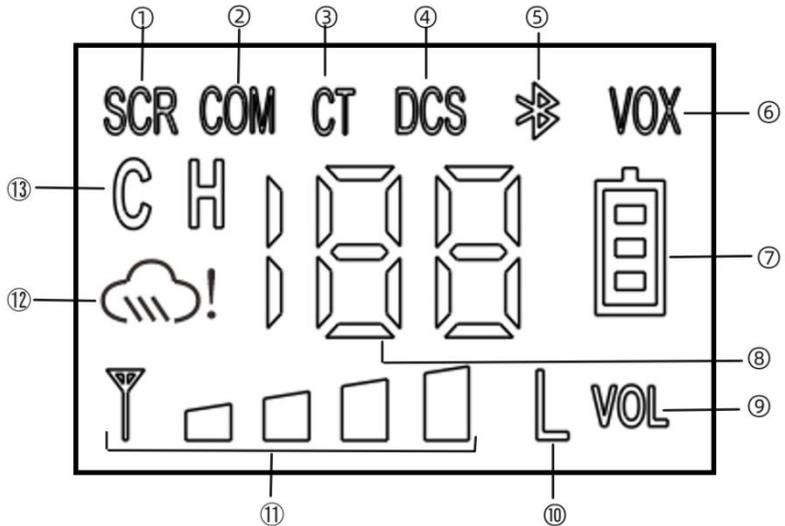
Name	Quantity
Walkie Talkie	1
Battery	1
Power Adaptor	1
Belt Clip	1
Hand Strap	1
User Manual	1

# Button Description



1	Earphone/ Jack	Programming	2	Type-C Port
3	Antenna		4	Power/ Volume Switch
5	Screen		6	PTT Button
7	CH+/CH- Key; Sidekey1/2		8	Battery Release Clip

# LED Display



No.	Radio Status
①	Scrambler
②	Compander
③	CTCSS
④	CDCSS
⑤	Bluetooth (Not support)
⑥	VOX Indicator

⑦	Battery Indicator
⑧	Channel Capacity
⑨	Non
⑩	High/ Low Power
⑪	Receive Signal
⑫	NOAA Weather Indicator
⑬	Channel

# Preparation

## Charging the Battery

1. Insert the plug of the power adapter into the power socket;
2. Insert the other end of the power adapter into the jack on the back of the charger; (This radio has two charging methods: the Type-C port on the side can be

directly plugged into the 5V/1A charging cable for charging.)

3. Insert the battery into the charger correctly.

The indicator light on the charger shows the charging status. When the indicator light turns red, it means charging has started. When the indicator light turns green, charging is complete. The indicator of the charger shows the charger status.

LED Indicator	Status
Red light flashing	Standby (No Load)
Red light on	Charging
Green light on	Charging Complete

## **NOTICE:**

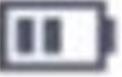
1. Make sure the radio is turned off before charging

and do not use the radio during charging.

2. Please use the charger designated by our company to charge the battery.

3. For the best battery performance, charge for at least 3 hours when charging for the first time.

4. Battery Indicator:

Battery Icon	Battery Status
	High Power
	Middle Power
	Low Power
	Lack of Power

## **Assembling the Accessories**

### **Assembling the Battery**

Turning the back of the radio toward you, pry the back cover and align the positive and negative poles of the lithium-ion battery with the radio then press the battery into the radio.

### **Removing the Battery**

Turning the back of the radio toward you, pry up the battery from the bottom recess until the battery is completely separated from the radio.

### **NOTICE:**

Before assembling or removing the battery, make sure that the radio is completely turned off by turning the Power/Volume Switch counterclockwise.

## **Assembling Audio Accessories**

1. Lift the accessory interface cover;
2. Align the accessory plug with the accessory interface and push it firmly to the end.

### **NOTICE:**

Please assemble accessories correctly otherwise the external headset or radio programming may be affected.

## **Basic Operation**

### **Switch Power On and Off**

To turn on, please turn the Power/ Volume Switch clockwise until you hear a "click" ; to turn off the power, please turn the switch counterclockwise until

you hear a "click" .

## **Adjust the Volume**

After power on, turn the Power/ Volume Switch clockwise to increase the volume and counterclockwise to decrease the volume.

## **Select Channel**

When the radio is on, short press the **【CH+/CH-】** key to select the channel upward or downward and the voice will announce the corresponding channel.

## **Transmitting and Receiving**

Transmitting: After selecting the channel, press and hold the **【PTT】** button. When the red light indicator is constantly on, the radio is transmitting. Then speak

into the microphone in a normal intonation.

Receiving: There will be an end of transmitting tone after releasing the **【PTT】** button. The radio is available for receiving. The green light indicator will be on constantly when receiving.

## **NOTICE:**

For the best volume of reception, keep the distance between the microphone and your mouth at 2.5 cm to 5 cm when transmitting.

# **Function Introduction**

## **Crack & Copy Frequency via Side Button**

**1. Crack:** The radio must be on channel one.

Press the **【PTT】** button to turn on the radio and enter the crack mode. You can press **【CH+/CH-】** key to

select the channel you want to crack and store. After the transmitter transmits the signal, the radio emits a "beep" and the green light will flash. This means the crack is successful. The radio will enter the next channel to crack automatically. Press the **【PTT】** button again will exit the crack mode. The green light will turn off and the channel will return to channel one automatically.

## **2. Wireless Copy:**

①**Wireless copy transmitter:** The radio must be on channel two. Press the **【PTT】** button to turn on the radio and enter the copy transmit mode. You will see the red light turns on and the screen shows a full display. The transmit copy begins when releasing the **【PTT】** button. You need to turn off the radio

manually to exit the transmit code.

②**Wireless copy receiver:** The radio must be on channel three. Press the **【PTT】** button to turn on the radio and enter the copy receive mode. When the receive copy begins, the green light turns on and the screen shows a full display. When the copy is completed, the radio emits a “beep” and restarts automatically. The wireless copy is successful.

## **NOTICE:**

Wireless copy must be the two radios of the same model. The one is the wireless transmit state and the other one is the wireless receive state.

## **English and Chinese Switch**

There are two ways to switch the voice announcement.

1. The radio must be on channel fifteen. Long press the **【PTT】** button and **【CH+】** key at the same time to turn on the radio.

2. You can select the language of voice announcement on programming software.

Operation as follows: Parameter → VoicePrompt → select Chinese/ English/ Off

## **Monitor**

Set any of the side keys to be long pressed as monitor function on the programming software.

## **Scan**

Set any of the side keys to be long pressed as scan function through the on software.

## **NOAA Weather Forecast**

Set any of the side keys to be long pressed as NOAA weather forecast function through the programming software.

### **NOTICE:**

When this function is turned on, the icon of weather appears on the screen. When is turned off this function, the icon disappears.

## **High/Low Power Selection**

Select high or low power on the programming software. Low power channel has the letter “L” on the screen. High power does not have.

PMR446 only supports 0.5W Max.

FRS 8-14Ch only supports 0.5W Max.

## Technical Specification

<b>General</b>	
Frequency Range	PMR446 (EU) FRS (USA)
Channel Capacity	16 EU /22 USA
Channel Spacing	12.5kHz
Operation Voltage	DC 3.6V
Battery Capacity	1000mAh Li-ion
Operating Temperature	0~ + 40°C
Frequency Stability	± 2.5PPM
Antenna Impedance	50Ω
Standby Current	≤ 20mA
Dimension (with Antenna)	135×55×20
Weight (with Battery and Antenna)	103g

<b>Transmitter</b>	
Carrier Frequency Tolerance	$\pm 2.5\text{PPM}$
Carrier Output Power	$\leq 0.5\text{W}$ PMR446 $\leq 1.0\text{W}/0.5\text{W}$ FRS
Modulation Limiting	$\leq 2.5\text{kHz}$
Modulation Characteristics	$+1 - 3\text{dB}(0.3 - 3\text{kHz})$
Audio Distortion	$\leq 5\%$
Emission Current	$\leq 1200\text{mA}$
Adjacent Channel Power	$\geq 70\text{dB}$
Spurious RF Components	$\leq -36\text{dBm}$
Occupying Bandwidth	$11\text{kHz}$
<b>Receiver</b>	
Receive Sensitivity	$\leq 0.25\ \mu\text{V}$
Audio Power Output	$> 0.7\text{W}$
Audio Distortion	$\leq 5\%$
Audio Response	$+1 - 3\text{dB}(0.3 - 3\text{kHz})$
Co-channel Rejection	$\geq -8\text{dB}$
Adjacent Channel Selectivity	$\geq 70\text{dB}$
Intermodulation Immunity	$\geq 65\text{dB}$
Spurious Response Immunity	$\geq 70\text{dB}$

Blocking Characteristics	≥ 84dB
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## Troubleshooting Guide

Fault description	Failure Cause Analysis	Troubleshooting
Boot failure	The battery may not be installed properly.	Take out the battery and reinstall.
	The battery may be exhausted.	Charge or replace the battery.
	Poor contact due to dirty or damaged contacts on the battery.	Clean the battery contacts. If the problem still cannot be solved, please contact the dealer or the designated maintenance point for overhaul.
Little, intermittent, or no sound when receiving a signal.	Battery voltage is too low.	Charge or replace the battery.
	Low volume	Turn up the volume.
	Speakers are clogged or damaged.	Perform a simple exterior cleaning. If the problem still cannot be solved, please contact the dealer or designated maintenance station for inspection.

Can't talk to members of the group.	Different frequencies or signaling settings are used than other members of the group.	Set the same frequency and signaling as other members of the group.
	Far away from members of the group.	Get as close to members as possible.
There are other talking sounds or noises on the channel.	Interference from co-channel users.	Change to a new frequency point or adjust the squelch level.
	Signaling not set.	Set signaling for all walkie talkies in the group to prevent co-channel interference.
The noise is relatively loud.	Communication distance with members is too long.	Close to members
	The location is not good, such as blocked by tall buildings, or located in the basement, etc.	After moving to an open and flat place, turn on the radio and try again.
	Affected by the external environment or electromagnetic interference.	Avoid devices that may cause interference.

# Clean

1. Please regularly use a clean and dry lint-free cloth or brush to wipe off the dust attached to the surface of the product and the charging pole piece;
2. Radio can be cleaned with neutral detergent and non-woven cloth. Please do not use chemicals such as detergent, alcohol, spray, or petroleum preparations to avoid damage to its surface and shell. After cleaning, please ensure the product is dehydrated, otherwise do not use it.

## **NOTICE:**

Please turn off the radio and remove the battery before cleaning.

# Maintenance

1. Do not use hard objects to puncture or scratch this product;
2. Do not store this product in an environment containing substances that corrode electronic circuits;
3. When the accessory is not in use, please cover the accessory interface cover.

## SAFETY STATEMENT INFORMATION

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 including received interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. Replacement of any transmitter component (crystal, semiconductor, etc) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

The equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates use and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Hold this transmitter approximately 25 mm away from your face and speak normal with the antenna pointed up and away. Use the supplied belt clip for body-worn configuration as other accessories may not comply to the limits.

Hereby, We declare that the radio is compliance with Radio equipment Directive (RED) 2014/53/EU. The device in the environment with the temperature between 0-40°C and operating under 2000m, otherwise, it may damage your radio.

For this device, Head SAR and Body SAR was performed with the device configured in the positions according to EN 50566:2017 & EN IEC/IEEE 62209-1528:2021, and face-up SAR was performed with the device 25mm from the phantom, and Body SAR was performed with the device 0mm from the phantom. Body SAR was also performed with the headset and belt clip attached and without.

The maximum results of EU 10g SAR (50% duty cycle) as follows:

Face up (25mm): 0.024W/Kg

Body back (0mm): 0.075W/Kg

Hand (0mm): 0.312W/Kg

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR  
RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND  
FEDERAL LAW.