

**BAOFENG**

**po fung**

TWO WAY RADIO

**FRS**

Model: F8X



# USER'S MANUAL

## ATTENTION

Pofung F8 is a multitask FRS transceiver. Combining the latest technology in radio communication along with a sturdy mechanical frame, F8 is the ideal and effective solution for the professionals who need to stay in touch with the working team (in construction sites, buildings, shows, trade fairs or hotels) or for leisure users that just want to keep up with friends and family.

To help you ward off bodily injury or property loss that may arise from improper operation, please read all the information carefully before using our products.

### FCC RF EXPOSURE

**WARNING!** It is up to the user to properly operate this radio transmitter to insure safe operation. Please adhere to the following:

Do not use the radio with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result.

Please contact your local dealer for a replacement antenna.

#### ■ Hand-Held Operation (Held-to-Face)

This device was evaluated for typical hand-held (held-to-face) operations with a 1 inch spacing from the front of the radio. For hand-held operation, the radio should be held 1 inch from the user's face in order to comply with FCC RF exposure requirements.

#### ■ Body-Worn Operation

This device was evaluated for body-worn operations with the supplied belt-clip accessory. (All necessary accessories are included in the package; any additional or optional accessories are not required for compliance with the guidelines.) Third party accessories (unless approved by the manufacturer) should be avoided as these might not comply with FCC RF exposure guidelines.

For body worn operation, this device has been tested and meets the Industry Canada RF exposure guidelines when used with Pofung accessories supplied or designated for this product. Use of other accessories may not ensure compliance with

Industry Canada RF exposure guidelines.

Fonctionnement de l'appareil, lorsque porté sur le corps. Cet appareil a été testé et s'est avéré conforme aux normes d'Industrie Canada et approuvé pour le port sur le corps à l'aide des accessoires Pofung inclus et conçus pour cet appareil. L'utilisation d'accessoires ne respectant pas les exigences d'exposition RF d'Industrie Canada doit être évitée.

## **FCC PART15/IC COMPLIANCE**

### **■ FCC PART 15 COMPLIANCE**

This device complies with Part 15 of the FCC rules. Operation is subjected 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.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Avis de conformité à la FCC : Ce dispositif a été testé et s'avère conforme à l'article 15 des règlements de la Commission fédérale des communications (FCC). Ce dispositif est soumis aux conditions suivantes: 1) Ce dispositif ne doit pas causer d'interférences nuisibles et; 2) Il doit pouvoir supporter les parasites qu'il reçoit, incluant les parasites pouvant nuire à son fonctionnement.

Tout changement ou modification non approuvé expressément par la partie responsable pourrait annuler le droit à l'utilisateur de faire fonctionner cet équipement.

### **■ IC COMPLIANCE**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Cet appareil est conforme aux normes RSS exemptes de licences d'Industrie Canada. Son fonctionnement est soumis aux

deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférences nuisibles et (2), il doit pouvoir accepter les interférences, incluant celles pouvant nuire à son fonctionnement normal.

Tout changement ou modification non approuvé expressément par la partie responsable pourrait annuler le droit à l'utilisateur de faire fonctionner cet équipement.

## **PRECAUTIONS FOR BATTERIES**

### **■ Charging Prohibitions**

To protect you against any property loss, bodily injury or even death, be sure to observe the following safety instructions:

1. Do not charge or replace your battery in a location containing fuels, chemicals, explosive atmospheres and other flammable or explosive materials.
2. Do not charge your battery that is wet. Please dry it with a soft and clean cloth prior to charge.
3. Do not charge your battery suffering deformation, leakage and overheat.
4. Do not charge your battery with an unauthorized charger.
5. Do not charge your battery in a location where strong radiation is present.
6. Overcharge shall always be prohibited for it may shorten the life of your battery.

### **■ Maintenance Instructions**

To help your battery work normally or prolong its life, be sure to observe the following instructions:

1. Accumulated dust on charging connector may affect normal charging. Please use a clean and dry cloth to wipe it on a regular basis.
2. It is recommended to charge the battery under 5°C~40°C. Violation of the said limit may cause battery life reduction or even battery leakage.
3. To charge a battery attached to the product, turn it off to ensure a full charge.
4. Do not remove the battery or unplug the power cord during charging to ensure a smooth charging process.
5. Do not dispose of the battery in fire.
6. Do not expose the battery to direct sunlight for a long time nor place it close to other heating sources.

7. Do not squeeze and penetrate the battery, nor remove its housing.

## ■ Transportation Instructions

1. Damaged batteries must not be transported.
2. To avoid short circuit, separate the battery from metal parts or from each other if two or more batteries are transported in one packaging.
3. The radio must be switched off and secured against switch-on, if the battery is attached.

The content of the shipment must be declared in the shipping documents and by a Battery Shipping Label on the packaging. Contact your hauler for the local regulations and further information.

## ■ Precautions for Disposal

Once the service life of our products (including but not limited to radios and batteries) has ended, they shall not be disposed as household garbage. Their recycling and disposal shall satisfy your local regulations.

# MAINTENANCE

To be safe and sure:

- Never open your radio's case.
- Never change or replace anything in your radio except the batteries.

## ■ Care and Safety

Your F8 was designed to fulfill any warranty obligations and to enjoy this product for many years.

As for all the electronically devices, we recommend you to follow this few suggestions:

- Do not attempt to open the unit. Non-expert handling of the unit may damage it and/or annul the warranty.
- When using regulated power supply, take notice of power voltage that must be 5V to avoid damages.
- High temperatures can shorten the life of electronic devices, and warp or melt certain plastics. Do not store the radio in dusty or dirty areas.
- Keep the Radio dry. Rainwater or damp will corrode electronic circuits.

- If it appears that the Radio diffuses peculiar smell or smoke, please shut off its power immediately and take off the charger or battery from the Radio.
- Do not transmit without antenna.
- To clean the radio, use a soft cloth dampened with water. Do not use cleaners or solvents because they can harm the body of the unit and leak inside, causing permanent damage.
- Use a dry, lint-free cloth to clean the battery contacts.

## ■ Hazardous Environments

Do not operate the radio in hazardous environments. Explosion or fire may result. Do not operate the radio near unshielded electrical blasting caps.

Under certain conditions, radios can interfere with blasting operations and may cause an explosion. Turn your radio OFF to prevent accidental transmission when in a blasting area or in areas posted: "Turn off two-way radio." Construction crews often use remote control RF devices to set off explosives.

**WARNING!** Read this information before using the radio. In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters.

Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of the radio complies with the FCC guidelines and these international standards.

Never allow children to operate the radio without adult supervision and the knowledge of the following guidelines.

## Programming software (optional)

Thanks to Pofung Programming software CPS-F8-FCC, it is possible to increase the performance of your radio or to reduce its functionality by disabling some of the default features (CTCSS, DCS, TOT, VOX...)

For further information, please consult the Programming software manual.

Any attempt to change frequencies or output power of the radio invalidates the approval.

## Package Contents

- 1 F8 transceiver
- 1 1500mAh Li-ion rechargeable battery pack
- 1 User Manual
- 1 Belt clip
- 1 Desktop charger\*

Note: The number of the above materials may be depending on the number of packages.

## Main characteristics

- FRS Transceiver (No license required)
- Channel spacing: 12.5 KHz
- VOX (voice activated transmit)
- Channel monitor (on channel 16)
- English/Chinese prompt language selection
- 2pin Kenwood accessory jack
- 50 CTCSS tones and 210 DCS codes
- TOT (Time out timer)
- Ultra long run-time of up to 18 hours (90% Standby, 5% talk, 5% listen)
- Output power: Max 2W
- Channel Scan, Scan mode: Time, Carrier, and Search
- Battery save
- Ten (10) levels of Squelch adjustment
- Flashlight
- PC programmable
- Li-Ion 1500mAh battery pack
- Ultra clear voice

## Battery recharge

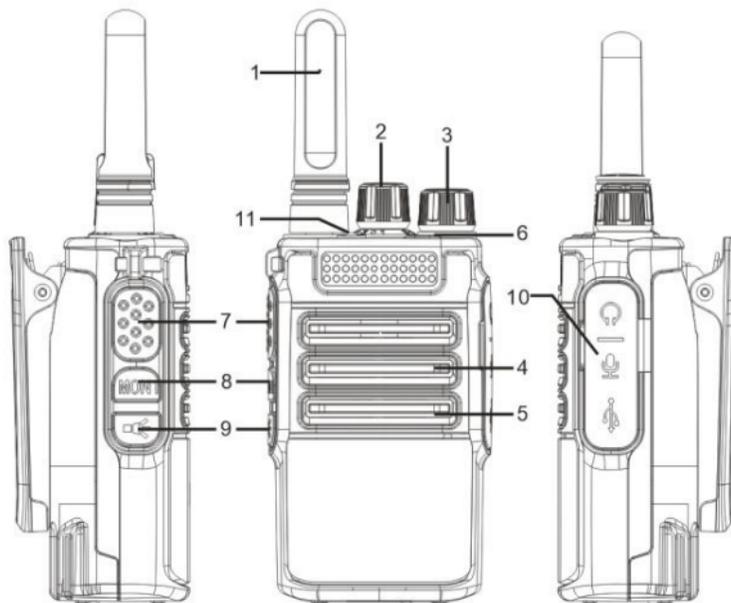
F8 is equipped for using a 3.7V Li-ion rechargeable battery pack which can be recharged connecting the socket of the AC/DC wall adaptor to a mains power socket and inserting the jack of the wall adaptor into the desktop charger plug. It takes 4-5 hours to fully recharge the radio. For maximum battery life, we recommend charging the battery pack when the F8 is off and the battery pack is fully discharged.

**NOTE: Using a different battery charger other than the one specified can cause damage to your device**

**OR may even cause explosions and personal injuries.**

The Battery power saving feature enables a reduction in consumption of up to 50%. If it has been set, it automatically activates when the transceiver does not receive any signal for more than 5 seconds in order to save the battery life. Power saving can be disabled only through Programming software.

## Main controls and parts of the radio



1. Antenna
2. Encoder: rotate clockwise or counter-clockwise to select the desired channel
3. Power/volume knob-turn clockwise to power on and increase the volume level.  
Turn counter-clockwise to decrease the volume level and power off.
4. Speaker
5. Built-in microphone
6. Led indicator: RED: TX; GREEN: RX.
7. PTT: push this button to transmit, release it to receive.
8. Side key 1: hold down this button to activate the Monitor function.
9. Side key 2: shortly press this button to turn on/off the flashlight at the top side of the radio.
10. External Speaker/Mic Jack- allows the connection with external devices such as headsets, microphones.
11. Flashlight

## Operations

### Power on/off and volume adjustment

Rotate the Power/Volume knob clockwise to turn the radio on. Rotate the control clockwise /counter-clockwise to adjust the volume level as you prefer. To turn the radio off, rotate the control counter-clockwise till hearing a mechanical “click”.

### Transmission

To communicate, all radios in your group must be set to the same channel. Briefly press the Side key 1 to enable the Monitor feature in order to make sure that the frequency is not busy, and then press the PTT button. Release the PTT key to receive. Only one user at a time can talk during radio communications. Therefore, it is important not to transmit when you are receiving a communication and use the transmission mode sparingly to allow other users to talk. Transmission consumes a significant amount of energy and should therefore be used sparingly to prolong the battery life. If you are unable to contact a

station that you have no problems in receiving, the station may be using CTCSS tones or DCS codes.

## **Monitor**

The Monitor feature is for excluding (opening) the Squelch, in order to listen to signals that are too weak to keep the Squelch permanently opened. Hold down the **Side key 1** to enable such function.

## **Scan**

This function can be activated only by means of the optional programming software. To enable the Scan function, all 16 channels must be programmed. If you turn on the radio on channel 16, the scanning will automatically start. Whenever any signal is detected, the scanning will stop on a busy channel. If the PTT is pressed, you will transmit on the latest busy channel. Channel 16 is the priority channel; therefore if you don't pick up any signal when you press PTT, the radio will transmit on channel 16.

## **Squelch**

The Squelch function suppresses noises on free channels and allows receiving even weak signals. F8 has 10 different Squelch levels that can be set by programming software: 0 means that the Squelch is turned off; from level 1 to level 9 you will have different levels of noise reduction. The higher is the level, the louder will be the Squelch. By default, the Squelch level of F8 is set on level 4. Make sure you do not set an excessively high squelch level because in this case you may not be able to receive weaker signals. On the other hand an excessively low Squelch value could enable the Squelch even when no signals are present. Squelch must always be adjusted when no signals are present. The Time Out timer is settable from 30 sec to 270 sec. only through the programming software. This feature is disabled by default.

## **CTCSS/DCS tones**

CTCSS and DCS tones are similar to access codes and enable the radio to communicate only with the users that are tuned on the same channel and have set the same code. For each channel, you can set up to 50 CTCSS tones and 210 DCS codes. The CTCSS/DCS tones are a sort of "access codes" and enable the radio to communicate only with the other users set on the

same frequency and on the same CTCSS/DCS tone. Undesired signals coming from other stations set on the same frequency but with different CTCSS/DCS tones won't be received.

## **Flashlight**

With F8 turned on, shortly press the **Side key 2** to turn on/off the flashlight at the top side of the radio.

## **Prompt voice switch settings**

The encoder is selected to the **10th** channel. Press and hold the **PTT** and **Side Key 1** to turn on the radio, and turn the prompt voice on or off.

Turn on the prompt voice function, and there will be voice prompts when the encoder is turned on or operated. If you turn off the prompt voice function, there is only a "beep" prompt when you turn on or operate the encoder.

## **Emergency alert function**

If necessary, you can per-program the **Side Key 1** into the Alarm function via CPS programming software.

Turn on the radio, short press the **Side Key 1** to turn on the alarm function. Press the **Side Key 1** again to release the emergency alarm status.

**CPS programming path: Edit> Function Setting> Side Key> Alarm**

## **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 lowest one.

With the programming software you can enable/disable the VOX feature and select the sensitivity levels.

**CPS programming path: Edit> VOX >Vox Gain**

## Quick operation radio

Without CPS programming software, you can perform the following quick operations through the combination of **PTT + Side Key 1**:

- On channels 1-5, press and hold the **PTT + Side Key 1** key to turn on the radio and turn the VOX function on or off. The VOX sensitivity is level 1-5, the level 1 sensitivity is the highest, and the level 5 sensitivity is the lowest. Accompanied by a voice prompt VOX ON or VOX OFF.
- On the 10th channel, press and hold the **PTT + Side Key 1** to turn on the radio and turn on or off the prompt voice function.
- On the 15th channel, press and hold the **PTT + Side Key 1** to turn on the radio and switch the prompt language between Chinese and English.

## On-line service and support

The Radiokie website provides additional information about obtaining service or support for the Pofung line of two-way radios and accessories. visit: [www.radiokie.com](http://www.radiokie.com) Mail: [help@radiokie.com](mailto:help@radiokie.com)

FCC Licensing Information This pofung radio operates on Commercial/ Land Mobile frequencies which require a license from the Federal Communications Commission (FCC) for business, personal, education and recreational use. To obtain forms, call the FCC forms hotline at: 1-800-418-3676 or go to <http://www.fcc.gov> For questions concerning commercial licensing, contact the FCC at 1-888CALL-FCC (1-888-225-5322).

## Appendix A. – Trouble shooting guide

Phenomena	Analysis	Solution
You cannot turn on the radio.	The battery may be installed improperly.	Remove and reattach the battery.
	The battery power may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirty or damaged battery contacts.	Clean the battery contacts or replace the battery.
During receiving, the voice is weak or intermittent.	The battery voltage maybe low.	Recharge or replace the battery.
	The volume level may be low.	Increase the volume.
	The antenna maybe loose or maybe installed incorrectly.	Turnoff the radio, and then remove and reattach the antenna.
	The speaker maybe blocked.	Clean the surface of the speaker.
You cannot communicate with other group members.	The frequency or signaling type maybe inconsistent with that of other members.	Verify that your TX/RX frequency and signaling type are correct.
	You may be too far away from other members.	Move towards other members.
You hear unknown voices or noise.	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
	The radio in analog mode maybe set with no signaling.	Request your dealer to set signaling for the current channel to avoid interference
You are unable to hear anyone because of too much noise and hiss.	You may be too far away from other members.	Move towards other members.
	You may be in an unfavorable position. For example, your communication may be blocked by high buildings or blocked in an underground area.	Move to an open and flat area, restart the radio, and try again.
	It may be the result of external disturbance (such as electromagnetic interference).	Stay away from equipment that may cause interference.
The radio keeps transmitting.	VOX may be turned on or the headset is not installed in place	Turn off the VOX function. Check that the headphones are in place.

**NOTE:** If the above solutions cannot fix your problems, or you may have some other queries, please contact your dealer for more technical support.

## Appendix B. – Technical Specifications

### General Part

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Frequency Range	FRS
Working temperature	-20°C to +50°C
Operation Voltage	DC 3.7 V $\pm$ 10%
Operation Mode	Simplex
Dimensions	162mm×55mm×31mm (with Antenna)
Weight	147g (Battery pack included)
Antenna Impedance	50ohm
Duty cycle	5/5/90%

### Transmitter Part

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RF Output Power	2W (Max)
FM Modulation	11K0F3E@12.5KHz
Adjacent Channel Power	60dB @ 12.5 KHz
Transmission current	$\leq$ 1000mA

### Receiver Part

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Receive Sensitivity	0.25 $\mu$ V (12dB SINAD)
Adjacent Channel Selectivity	$\geq$ 55dB@12.5KHz
Inter Modulation and Rejection	$\geq$ 55dB@12.5KHz
Conducted Spurious Emission	$\leq$ -57dB@12.5KHz
Rated Audio Power Output	750mW @8 ohms
Rated Audio Distortion	$\leq$ 5%

**NOTE:** All specifications may be modified without prior notice or liability.

## Appendix C. - Channels and Frequencies

<b>CH.No</b>	<b>CH.Freq.</b>	<b>CH.No</b>	<b>CH.Freq.</b>
<b>1</b>	462.5625	<b>9</b>	462.7125
<b>2</b>	462.5875	<b>10</b>	462.5500
<b>3</b>	462.6125	<b>11</b>	462.5750
<b>4</b>	462.6375	<b>12</b>	462.6000
<b>5</b>	462.6625	<b>13</b>	462.6500
<b>6</b>	462.6250	<b>14</b>	462.6750
<b>7</b>	462.7250	<b>15</b>	462.7000
<b>8</b>	462.6875	<b>16</b>	462.7250

## Disclaimer

The accuracy and completeness of the contents are sought in the process of compilation, but we do not bear any responsibility for the possible errors or omissions. With the continuous development of technology, we reserve the right to change the design and specification of the product without notice. No copy, modification, translation and dissemination of this handbook may be made in any form without the prior written authorization of our department.



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