NA-UV8D Series

Digital Radio

OWNER'S MANUAL

English

Preface

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.

Notice to Users (ISED)

The operation of your Baofeng radio is subject to the Radiocommunications Act and must comply with rules and regulations of the Federal Government's department of Innovation, Science, and Economic Development Canada (ISED). ISED requires that all operators using Private Land Mobile frequencies obtain a radio license before operating their equipment.

Notice to Users (RED)

European Users should note that operation of this unit in Transmit mode requires the operator to have a valid Amateur Radio License from their respective Countries Amateur Radio Licensing Authority for the Frequencies and Transmitter Power levels that this Radio transmits on. Failure to comply may be unlawful and liable for prosecution. At this subject, refer to the "EU" specification guide 2014/53/EU.

RF Radiation Information

Compliance with RF Exposure Standards

The radio complies with the following RF energy exposure standards and guidelines:

● United States Federal Communications Commission, Code of Federal Regulations; 47 CFR § 1.1307, 1.1310 and 2.1093

● American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1:2005; Canada RSS102 Issue 5 March 2015

● Institute of Electrical and Electronic Engineers (IEEE) C95.1:2005 Edition

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environmental exposure limits, always adhere to the following procedures.

Guidelines:

● Do not remove the RF Exposure Label from the device.

● User awareness instructions should accompany device when transferred to other users.

● Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

● Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), press the Push-to-Talk (PTT) key. To receive calls, release the PTT key. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy only when transmitting (in terms of measuring for standards compliance).

● Keep the radio unit at least 2.5 cm away from the face. Keeping the radio at the proper distance is important as RF exposure decreases with distance from the antenna. The antenna should be kept away from the face and eyes.

● When worn on the body, always place the radio in an approved holder, holster, case, or body harness or by use of the correct clip for this product. Use of non-approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environmental RF exposure limits.

● Use of non-approved antennas, batteries, and accessories causes the radio to exceed the FCC RF exposure guidelines.

● Contact your local dealer for the product's optional accessories.

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and

can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Verification of harmful interference by this equipment to radio or television reception can be determined by turning it off and then 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 different circuit to that of the receiver's outlet.

● Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

● This device may not cause harmful interference.

● This device must accept any interference received, including interference that may cause undesired operation.

Note: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EU Regulatory Conformance

As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 2014/53/EU. All applicable EU regulations are regarded (2006/66/EC , 2011/65/EU , 2012/19/EU).Please note that the above information is applicable to EU countries only.

Precautions for Portable Terminals

Operating Prohibitions

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

1. Do not operate the product in a location containing fuels, chemicals, explosive atmospheres and other flammable or explosive materials. In such location, only an approved Ex-protection model is allowed for use, but any attempt to assemble or disassemble it is strictly prohibited.
2. Do not operate the product near or in any blasting area.
3. Do not operate the product near any medical or electronic equipment that is vulnerable to RF signals.
4. Do not hold the product while driving.
5. Do not operate the product in any area where use of wireless communication equipment is completely prohibited.

■ Important Tips

To help you make better use of the product, be sure to observe the following instructions:

1. Do not use any unauthorized or damaged accessory.
2. Keep the product at least 2.5 centimeters away from your body during transmission.
3. Do not keep the product receiving at high volume for a long time.
4. For vehicles with an air bag, do not place the product in the area over the air bag or in the air bag deployment area.
5. Keep the product and its accessories out of reach of children and pets.
6. Please operate the product within the specified temperature range.
7. Continuous transmission for a long time may lead to heat accumulation within the product. In this case, please keep it at a proper location for cooling.
8. Handle the product with care.
9. Do not disassemble, modify or repair the product and its accessories without authorization.

■ Protect your hearing

1. When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.

2. Use the lowest volume necessary to do your job.

3. Turn up the volume only if you are in noisy surroundings.

4. Turn down the volume before adding headset or earpiece.

5. Limit the amount of time you use headsets or earpieces at high volume.

6. Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss

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℃~40℃. 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 pars 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.

Content of the packaging

- 1   Radio
- 1   Wrist strap
- 1   Charging dock

- 1   Li-Ion battery pack
- 1   Belt clip

- 1   Antenna
- 1   Owner's Manual

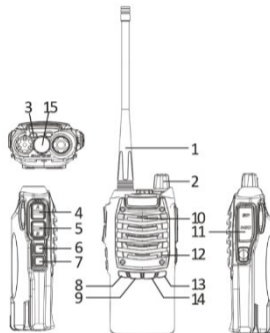*If any item is missing, please verify with your dealer.*

Main Features

-Voice recognition and intelligent noise reduction, easy to deal with noisy environments;

-Encrypted calls (up to 32 key configurations), making calls more confidential

-Subversive digital calls, rejecting any frequency sweeping and code breaking, truly confidential communication;

-Analog frequency sweep function, easy to match other intercom devices;

-Wireless cloning, batch copying, no need to program computer by computer

-Support non-standard CTCSS, frequency hopping function, enhance signal concealment and anti-interference ability

-Rich shortcut operation (two function keys combined operation), to meet the common functions of the manual setup

-30 Channel memory, can be digital channel, analog channel

-Press and holding side button function customization: Monitor, Power selection, Alarm function

-51 Groups of standard CTCSS, 105 groups of standard DCS, support non-standard analog CTCSS

-4 Groups of squelch: Normally open, Normal, Strengthened, Strict

-VOX voice-activated emission and 5-Level voice-activated level setting

-Channel scan and scan channel addition (analog channel, digital channel)

-High and low transmit power selection

-Chinese and English language settings, support for more small language reporting (Russian, French, Portuguese, Spanish, German)

-Type-C charging, convenient and fast

-Playback frequency of current channel, playback current battery level

NOTE: The frequency range is the hardware design frequency, and the actual frequency that can be used must be strictly in accordance with the regulatory requirements of the country and region where it is used.

Main controls and parts of the radio

1. Antenna
2. Power switch/volume knob
3. Led indicator: RED: TX; GREEN: RX
4. PTT-A key (Transmits on A band)
5. PTT-B key (Transmits on B band)
6. SK1-Battery access (Press) / Alarm (Press and hold)
7. SK2-Flashlight (Press) / Monitor (Press and hold)
8. Menu key
9. ▲ Up key
10. Speaker
11. External Speaker/Mic Jack- allows the connection with external devices such as headsets, microphones.
12. Built-in Microphone
13. Exit key
14. ▼ Down key

LED Status Indications

The top LED will help you to identify the current radio status.

LED Indication	Radio Status
Constant Red	Transmitting
Constant Green	Analog Receiving
Flashes Green	Analog Scan
Constant Yellow	Encryption Receiving
Flashes Yellow	encryption Scan

Charging the Battery

Use the approved charger to charge the battery.

Read the Safety Information Booklet before charging.

Before initial use, fully charge the battery to ensure optimum performance.

To charge the battery, do as follows:

(1) Insert the output connector of the power adapter into the port on the back of the charger.

(2) Plug the power adapter into a power outlet.

(3) Place the battery into the charger, and then switch the power outlet on.

To determine the charging status, check the light-emitting diode (LED) indicator on the charger according to the following table:

LED Indication	Charge Status
Green	No Battery
Constant Red	The battery is charging.
Constant Green	The battery is fully charged.

You can also charge the radio with battery attached. It is recommended that your radio remain turned off during charging.

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.

Rotate the **[Power/Volume]** knob to adjust the volume. Turn clockwise to increase the volume and counterclockwise to decrease the volume.

·To turn the radio off, rotate the control counter-clockwise till hearing a mechanical "click".

·If voice prompts are enabled, they will be accompanied by "Power on and channel number".

Select a Channel

The radio's channel allows definition for analog or/and encrypted communications.

Press and hold the **[EXIT]** key to unlock the keypad and press the [▼]/ [▲] key to select the channel up or down.

Note: It is necessary to set the group members' on the same channel to communicate with each other.

-When the voice prompt function is turned on, the voice announces the corresponding channel.

-If it is an encrypted channel, it will be accompanied by "encryption alert".

Press and hold the [**EXIT**] key to lock the keypad or unlock the radio settings and channels to avoid misuse.

Making a Call

To communicate, all radios in your group must be set to the same channel.

Press and hold the **[PTT-B]** key to enable the Monitor feature in order to make sure that the frequency is not busy, and then press and hold the [**PTT-B**] key. Release the [PTT-B] 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.

Making a Encryption Call

·Select an encryption channel, Press and hold **[PTT-B]** key, the radios is in the transmitting state, and the red indicator light is constantly on. Then speak in a normal tone into the microphone.

·After releasing the **[PTT-B]** key, the yellow light briefly flashes once, and the radio is in an acceptable state. When receiving a call, the yellow indicator light remains on.

Note: Set the group members on the same channel and encryption sequence (0-31) to achieve interconnection.

Emergency Call (PTT-A)

In order to ensure that in case of emergency, you can call all the members who are not on the main channel, this unit has a special "SOS Emergency Call" function.

Before using the emergency call function, you must configure an emergency channel for the group intercom. And turn on dual standby.

-Making a call: After selecting the channel, press and hold down the **[PTT-A]** key, the intercom is in the transmitting state, and the red indicator light is always on. Then speak into the microphone with normal voice tone.

-Receiving a call: After releasing the **[PTT-A]** key, the walkie-talkie is in a receivable state. When receiving a call, the green indicator light is

always on.

Monitor

On analog channels, you can use **[SK2]** (Monitor key) to hear weaker signals that are difficult to hear during normal operation, and to adjust the volume when there is no signal on the channel you have selected.

In standby mode, press and hold **[SK2]** (monitor key) to turn on the monitor function. Release **[SK2]** (Monitor key) to exit the monitor state.

One-touch access to battery level

In standby mode, press the **[SK1]** (Battery access) will be accompanied by a voice prompting the current battery level.

-Battery High: sufficient battery level.

-Battery Medium : average battery level.

-Battery Low : insufficient power, please charge in time to replenish the power

Channel memory information access

In standby mode, press and hold **[SK2]** key and then press **[SK1]** key briefly, it will broadcast the parameter information such as transmit frequency, receive frequency, CTCSS/DCS, transmit power, etc. stored in the current channel.

Alarm Function

Press and hold the **[SK1]** key to activate the alarm function, accompanied by an alarm sound.

LED flashlight

Press the **[SK2]** key in order to turn on the flashlight function.

Press **[SK2]** key 2 times to flash the flashlight. Press **[SK2]** keu again to turn off the flashlight.

Channel Scan

Note: Scanning can only be realized by setting the channel's scanning add to on through the CPS program software and turn on the unit's scanning function.

The scan function is used to monitor to the signals programmed on the radio's channels. During scanning, the radio detects signals on each channel and stops only on channels that have signals.

Note: Channels that have not been added are not scanned.

The radio will remain on the communication channel until that signal disappears. Scanning will resume 5 seconds after the signal disappears

unless a new signal is detected within that delay time.

Note: The scanning feature is only available if your local dealer has programmed at least two channels for the radios. In addition, at least two channels must not be programmed for Scan Delete. Consult your local dealer for details on how to use the Scan feature with Coded Squelch or Select Call.

1) Press and hold the [▲] key on any channel to turn on the radio in order to enter channel scanning.

2) Enter analog scanning on an analog-like channel, the indicator is blinking green. To enter encrypted scanning on an encrypted channel, the indicator flashes yellow. When the scan pause is permanently illuminated on a channel, pressing and holding the [PTT-B] key will initiate a callback on the dwell channel.

3) At any time during scanning, press and hold the **[SK2]** key the radio exits scanning. The radio returns to transmit on the channel on which the last signal was received. If a valid signal is received during scanning, then it returns to the channel where scanning began.

4) Scanning Mode: In carrier scanning mode, scanning stops when a signal is scanned, and scanning continues after the carrier signal is lost for 5 seconds. After scanning the signal, the voice prompts the serial number of the channel scanned.

Menu functions

The MENU key allows you to set the radio as follows:

-Press and hold the [MENU] key for 1 second in order to enter the menu function, the

-Press the [▲] or [▼] key to select the options of VOX, Voice Prompt, language, turn on frequency scanning, dual watch and squelch.

-Press the [MENU] key to confirm and enter the sub-options.

-Press the [▲] or [▼] key to select On, Off or Level.

-Press the [EXIT] key to exit the setting

VOX

You can preset the Voice Transmit VOX switch and the voice level level (also known as microphone sensitivity) through the CPS programming software.

This feature allows you to initiate a hands-free call. The radio automatically transmits as soon as the unit's microphone detects voice and remains transmitting for a preset period of time.

1). VOX function, voice control is only effective if the VOX function is on.

2). VOX Gain Level: When the sound level is higher than the set VOX gain level, the VOX will automatically transmit. The gain level is adjustable from 1 to 5 levels.

3). VOX Disable on Receive: When checked, the VOX will not transmit when a signal is received, even if the sound level is higher than the set gain level.

Note: Long press [MENU] key for 1 second >> [▲] or [▼] key to enter VOX >> [MENU] key to enter option >> [▲] or [▼] key to select VOX OFF/ VOX 1/ VOX 2/ VOX 3/ VOX 4/ VOX 5 >> [MENU] key to confirm.

Voice Prompt

You can preset the voice Prompt function through the CPS programming software to turn on or off the voice Prompt function.

- **Voice Prompt On**: When switching channels, the corresponding channel number will be prompt.
- **Voice Prompt Off**: When switching channels, there is no voice prompt.

Note: Long press [MENU] key for 1 second >> [▲] or [▼] key to enter the voice prompt >> [MENU] key to enter the option >> [▲] or [▼] key to select "Voice Prompt On" or "Voice Prompt Off" >> [MENU] key to confirm.

(There is only a "beep" when the voice prompt is turned off, and there is no related voice prompt when switching channels).

Language - Chinese and English Selection

You can preset Chinese or English language through CPS programming software.

- **Language 1** (Chinese): Channel number or function prompts will be announced in Mandarin Chinese.
- **Language 0** (English): Channel number or function prompts will be announced in English.

Note: Long press [MENU] key for 1 second >> [▲] or [▼] key to enter the language selection >> [MENU] key to enter the option >> [▲] or [▼] key to select the language 1 (Chinese) / language 0 (English) >> [MENU] key to confirm.

Dual Standby

Long press [MENU] key for 1 second >> [▲] or [▼] key to select dual standby >> [MENU] key to enter dual standby switch

-**Dual Standby On**: The radio enters the dual standby mode and the emergency call is turned on. To turn on the emergency call function, press and hold PTT-A to initiate the call.

-**Dual Standby OFF**: The radio turns off the dual standby mode and disables the emergency call. Disabling the Emergency Call feature disables the PTT-A from transmitting.

Sweep Frequency Function

press and hold [MENU] key for 1 second >> [▲] or [▼] key to select sweep frequency >> [MENU] key to enter the sweep frequency function and the green light is flashing; long press (SK2) key prompts "beep" and the green light is always on to start sweep frequency. The frequency sweep will be automatically stored and there are two prompts of "Tick Tick". (The green light is always on during sweep frequency, and the green light is flashing when the sweep frequency is stopped.)

press and hold (SK2) key to continue sweep frequency, sweep frequency will be automatically stored and there will be a "beep" sound prompt, the indicator light as described above;

press and hold (SK2) key to continue sweep frequency , sweep frequency will be automatically stored and "beep beep" sound prompt; in order to operate until all the channels required.

Finish the sweep frequency task, long press the exit [EXIT] key to exit the sweep frequency, the sweep frequency task ends.

Squelch Level

Long press [MENU] key for 1 second >> [▲] or [▼] key to select squelch >> [MENU] key to enter squelch level selection;

- **Squelch 0**: No signal checking, equivalent to monitoring normally open

- **Squelch 1,5,9**: The lower the level, the greater the signal strength required to turn on reception

Quick group formation (Wireless clone)

Turn on the transmitter (master) and receiver (slave) by "holding down the [PTT-A] and [SK2] keys" to enter the wireless cloning mode. The receiver and transmitter prompt "beep" to enter wireless replication. When the transmitter presses the [PTT-B] key, the red light remains on, and the receiver green light automatically remains on. After copying all channel parameters of the transmitter, the receiver prompts "beep" twice. And automatically restart the radio.

Voice frequency hopping

Set frequency hopping on/off for each channel through CPS software. When the frequency hopping function is enabled, it cannot communicate with the regular settings.

Note: Channels with frequency hopping function must be synchronously set with CTCSS or DCS.

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 51 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.

Technical specifications

General

Frequency range	410~ 469 MHz(FCC) *430~440 MHz (CE)

Working temperature	-20°/+55° C
Operating voltage	7.4 V
Operate mode	Simplex
Dimensions	114*60.5*32mm (with antenna)
Weight	176 g (Battery pack included)
Antenna impedance	50Ω

Transmitter

Frequency stability	±2.5PPM
Output power	5W
Max frequency deviation	≤2,5KHz
Audio distortion	≤3%
Adjacent channel power	< 60 dB

Receiver

RF sensibility	<0.2UV@20 dB SINAD
Audio distortion	≤3%
Audio response	300Hz ÷ 3KHz
Adjacent channel selectivity	Within European legal terms

WARNING: Direct plug-in ac/dc power supply must be used for disconnecting the transceiver from the mains; the desktop charger must be positioned close to the unit and easily accessible.

PO FUNG ELECTRONIC (HK) INTERNATONAL GROUP COMPANY LIMITED

ADD: Room 1508, 15/F, Office Tower II, Grand Plaza, 625 Nathan Road, Kowloon, Hong Kong