5RX SERIES

Amateur Radio

OWNER'S MANUAL

PREFACE

Thank you for purchasing this product. which is a dual band/dual display/dual watch. This easy-to-use radio will deliver you secure, instant and reliable communications at peak efficiency. Please read this manual carefully before use. The information presented herein will help you to derive maximum performance from your radio.

WARNING ! 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.

ATTENTION! When programming the radio, start by reading the factory software data, and then rewrite this data with your frequency etc., to a new saved code plug, otherwise errors may occur. You can use the programming cable with a PC to program the authorized frequency, bandwidth, power, etc. your programming must comply with your FCC (or EU other country) license certification.

ATTENTION! ***Before using this product, read the RF Energy Exposure and Product Safety Guide that ship with the radio which contains instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulation.***

PMR446, FRS, GMRS, MURS

You may be tempted to use PMR446 (in Europe) or FRS, GMRS, MURS (in the USA) frequencies. Do note however that there are restrictions on these bands that make this transceiver illegal for use.

Table of Contents

Chapter1. Getting Started

1.1 Regulations and Safety Warnings

■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 1999/5/EC (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.

■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.

Note: This 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, uses 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.

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.

■FCC/IC RF Exposure

SAR tests are conducted using standard operating positions accepted by FCC/ISEDC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is a available for sale to the public, it must be tested and certified to the FCC/ISEDC that is does not exceed the exposure limit established by the FCC/ISEDC. Tests for each product are performed in positions and locations as required by the FCC/ISEDC.

For body worn operation, this device has been tested and meets the FCC/ISEDC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal.

To maintain compliance with FCC/ISEDC RF exposure guidelines hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

The equipment complies with FCC/ISEDC radiation exposure limits set forth for and uncontrolled environment. In order to comply with the FCC/ISEDC RF exposure requirement, the antenna installation must comply with following:

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

Your wireless hand-held portable transceiver contains a low power transmitter. This product sends out radio frequency (RF) signals when the Push-to-Talk(PTT) button is pressed.

The device is authorized to operate at a duty factor not to exceed 50%.

■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.

■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.

Maintenance

Your Two Way Radio is an electronic product of exact design and should be treated with care.
The suggestions below will help you to fulfill any warranty obligations and to enjoy this product for many years.

- Do not attempt to open the radio for any reason! The radio's precision mechanics and electronics require experience and specialized equipment; for the same reason, the radio should under no circumstances be realigned as it has already been calibrated for maximum performance. Unauthorized opening of the transceiver will void the warranty.
- Do not store the Radio under the sunshine or in hot areas.
- High temperatures can shorten the life of electronic devices, and warp or melt certain plastics.
- Do not store the radio in dusty and 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.

1.2 Content of the packaging

- 1 Radio
- 1 Antenna
- 1 Earphone
- 1 Li-Ion battery pack
- 1 Belt clip

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

1.3 Main features

- Scanning receiver frequency range: VHF108-136MHz, 136-174MHz, 220-260MHz, UHF 350-390MHz 400-520MHz
  FM: 76-108MHz
  Transmission Frequency 144-148 & 420-450MHz (America version)
  144-148 & 430-450MHz (Canadian version)
- Frequency band: VHF/UHF (Frequency limited)
- Up to 128 memory channels
- 50 CTCSS tones and 210 DCS codes
- SOS Emergency function
- FM radio receiver
- Channel or frequency mode selection
- TOT (Time out timer)
- Reverse function
- CTCSS and DCS codes research
- Busy Channel Lockout function (BCL)
- Frequency step: 12.5/25KHz
- Repeater shift
- VOICE: vocal indication of the function selected
- VHF and UHF bands and channel name displayed
- Squelch adjustable in 9 levels
- 1750Hz tone for repeaters
- LCD display with backlight adjustable in 3 colors
- VOX, Scan, Dual Watch functions
- Power Save
- DTMF function
- Alarm function
- Setting and storing of channel names
- Keypad lock
- Frequency offset (adjustable): 0-69.990MHz
- 2pin Kenwood accessory jack

Chapter2. Battery Information

2.1 Charging the Battery Pack

The Li-ion battery pack is not charged at the factory; please charge it before use. Charging the battery pack for the first time after purchase or extended storage (more than 2 months) may not bring the battery pack to its normal maximum operating capacity. Best operation will require fully charging/ discharging the battery two or three times before the operating capacity will reach its best performance. The battery pack life may be depleted when it's operating time decreases even though it has been fully and correctly charged. If this is the case, replace the battery pack.

2.2 Use Caution with the Li-ion Battery

a. Do not short the battery terminals or throw the battery into a fire. Never attempt to remove the casing from the battery pack, as BAOFENG cannot be held responsible for any accident caused by modifying the battery.
b. The ambient temperature should be between 5℃-40℃ (40˚F - 105˚F) while charging the battery. Charging outside this range may not fully charge the battery.
c. Please turn off the radio before charging. It may otherwise interfere with correct charging.
d. To avoid interfering with the charging cycle, please do not cut off the power or remove the battery during charging until the green light is on.
e. Do not recharge the battery pack if it is fully charged. This may shorten the life of the battery pack or damage the battery pack.
f. Do not charge the battery or the radio if it is damp. Dry it before charging to avoid damage.

WARNING!

When keys, ornamental chain or other electric metals contact the battery terminal, the battery may become damage or injure a human. If the battery terminals are short circuited it will generate a lot of heat. Take care when carrying and using the battery. Remember to put the battery or radio into an insulated container. Do not put it into a metal container.

2.4 How to Charge

a. It takes approximately 2-5 hours to fully charge the battery. When the lamp lights green, the charging is completed.

When charging a radio (with battery) the indicating lamp will not turn into green to show the fully charged status if the radio is powered on. Only when the radio is switched off will the lamp indicate normal operation. The radio consumes energy when it is power-on, and the charger cannot detect the correct battery voltage when the battery has been fully charged. So the charger will charge the battery in constant voltage mode and fail to indicate correctly when the battery has been fully charged.

2.5 LED Indicator

STATUS	LED
No Battery	Green and red alternately flashing
Charge Normally	Red
Fully Charged	Green
Trouble	Red blinks fast for a long time

NOTE：Trouble means battery too warm, battery short-circuite

Chapter3. Installation of Accessories

Before the radio is ready for use we need to attach the antenna and battery pack, as well as charge the battery.

3.1 Installing/ Removing the Antenna

a. Installing the Antenna: Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.
b. Removing the Antenna: Turn the antenna counter-clockwise to remove it.

3.2 Installing the belt clip

a. At the back of the radio there are two parallel screws mounted above the battery, remove these and thread them through the holes on the belt clip as you screw them back into the radio body.
b. Removing the Belt Clip: Unscrew counter-clockwise to remove the belt clip.

3.3 Installing the battery pack

Before attaching or removing the battery make sure your radio is turned off by turning the power/volume knob all the way counter-clockwise.

a. Make sure the battery is aligned in parallel with the radio body with the lower edge of the battery about 1-2cm below the edge of the radio.
b. Once aligned with the guide-rails, slide the battery upward until you hear a click as the battery locks in place.

Remove the battery pack

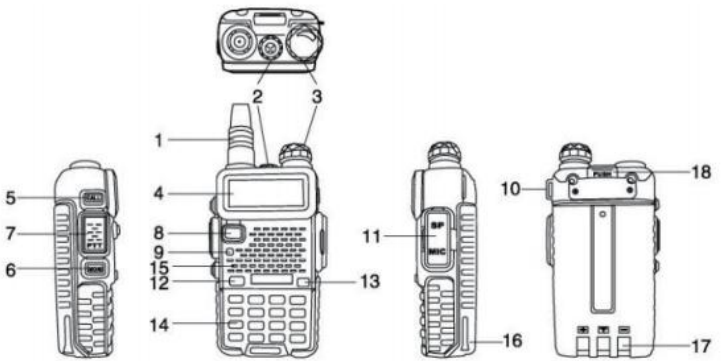
To remove the battery, press the battery release above the battery pack, as you slide the battery downward.

3.4 Installing the Additional Speaker/Microphone (Optional)

Pry open the rubber MIC-Headset jack cover and then insert the Speaker / Microphone plug into the double jack.

Chapter4. Radio Overview

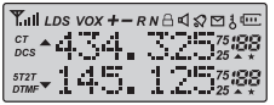
4.1 Buttons and controls of the radio



1. Antenna	7. PTT - Push to talk	13. BAND key
2. LED flashlight	8. VFO/MR mode key	14. Keypad
3. Power / Volume knob	9. Status LED	15. Speaker and microphone
4. Two-line LCD	10. Lanyard loop	16. Battery pack
5. Call key	11. Accessory jack	17. Battery contacts
6. Monitor key	12. A / B select key	18. Battery release latch

4.2 Main controls and parts of the radio

LCD Display



Icon	Description	Icon	Description
88	Memory channel	***R***	Reverse function enabled
75 25	Least significant modifiers.	***N***	Narrowband enabled
CT	CTCSS enabled		Battery level indicator
DCS	DCS enabled		Keypad lock enabled
+-	Frequency shift direction if enabled in VFO	***H***	Transmit indicator
S	Dual watch enabled		Indicates active band or channel
VOX	VOX enabled		Squelch Open/ Close Indicator

Note: ***Even though it is a seven character by two-line display, channel memories are only configurable to six character names.***

Battery Level Indicator

When the battery level indicator reads the battery is depleted. At this point the radio will start beeping periodically as well as flash the backlight of the display and when voice prompts are enabled, a "Low Voltage" announcement will be heard,

indicating that you need to change your battery or put your radio in the charger.

4.3 Status Indications

The status LED has a very simple and traditional design. When you receive a signal it turns green, when you transmit it turns red, and it's off in standby.

LED Indicator	Radio Status
Constant Red	Transmitting.
Constant Green	Receiving.

4.4 Main keypad controls

- **[CALL] key:** Press it for a short time to turn on the FM radio. Press it again to turn it off.
  If you press it for a long time you will activate the alarm function. Press it again to turn off this feature.
- **[MON] key:** Press it for a short time to light up the flashlight. If you push this button again, the flashlight will light up to strobe mode. Press MONI a third time to turn off the flashlight.
  To activate the Monitor function presses the button for a long time.
- **[VFO/MR] key:** Press it for switches between Frequency (VFO) Mode and Memory (MR) mode. Memory mode is sometimes also referred to as Channel mode.
  To save frequencies to channel memory you must be in Frequency (VFO) mode.
- **[A/B] key:** Press it for switches between A (upper) and B (lower) displays. The frequency or channel on the selected display becomes the active listening and transmit frequency or channel.
  To save frequencies to channel memory you must be on the A display.
  When listening to broadcast FM, the **[A/B]** key switches between 65-75 MHz and 76-108 MHz band
- **[MENU]** key: it is used for activating the MENU, choose each MENU selection and confirm the parameter.
- **[▲]** key: Press it for more than 2 seconds, the channel and frequency will move upwards rapidly; in SCAN mode, press this control to move the scanning upwards.
- [▼] key: Keep it pressed it for more than 2 seconds, the channel and frequency will move downwards rapidly; in SCAN mode, press this control to move the scanning downwards.
- **[EXIT]** key: push this button to exit the functions and settings.
- **[BAND]** key: Press it for switch between VHF or UHF bands. Press and hold the [BAND] key to activate the one-touch

search function. When listening to broadcast FM, the [BAND] key switches between 65-75 MHz and 76-108 MHz bands.

- **Numeric keypad**

  With these keys you can input the information or your selections on the radio. In tx mode, push the number keys to send a corresponding DTMF code.

- ***SCAN Key**

  A short momentary press of the key enables the reverse function.
  When listening to broadcast FM a momentary press will start the scanning. Scanning in broadcast FM will stop as soon as an active station is found, regardless of scanner resume method.
  To enable the scanner, press and hold the **[*SCAN]** key for about two seconds.

- **Zero 0 Key**

  The BAOFENG 5RX features a battery voltage meter that the current voltage of the battery on the display.
  To see the voltage displayed, press and hold the **[0SQL]** key for about two seconds.

- **#🔒 key**

  If you press shortly **[#🔒]** you will switch to High or Low output power.
  If you press this button for more than 2 seconds you will lock/unlock the keypad.

Chapter5. Basic Operations

5.1 Power on the radio

To turn the unit on, simply rotate the **Volume/Power** knob clockwise until you hear a "click". If your radio powers on correctly there should be an audible double beep after about one second and the display will show a message or flash the LCD depending on settings for about one second. Then it will display a frequency or channel. If the Voice prompt is enabled, the voice will announce "frequency mode" or "channel mode".
Turn the **Volume/Power** knob counter-clock wise all the way until you hear a "click". The unit is now off.

5.2 Adjusting the volume

To turn up the volume, turn the **Volume/Power** knob clock-wise. To turn the volume down, turn the **Volume/Power** knob counter-clock-wise. Be careful not to turn it too far, as you may inadvertently turn your radio off.

5.3 Making a call

NOTE: Press the [A/B] key to switch the main channel to the other channel if there is 2 channels shown on the display. Press the [VFO/MR] key to switch between VFO and channel display.

- Channel mode call: After selecting a channel, hold down the **[PTT]** key to initiate a call to the current channel. Speak into the microphone with normal tone. Initiate a call, the red LED is on.
- Frequency mode call: Press the **[VFO/MR]** key to switch to the frequency mode, the frequency range allowed entering, press the **[PTT]** key, a call to the current channel. Speak into the microphone with normal tone. Initiate a call, the red LED is on.
- Receive a call: When you release the **[PTT]** key, you can answer it without any action.
  When receiving a call, the green LED is on.

NOTE: To ensure the best reception volume, keep the distance between the microphone and the mouth at the time of transmission from 2.5 cm to 5 cm.

5.4 Channel selection

There are two modes of operation: Frequency (VFO) mode, and Channel or Memory (MR) mode.
For everyday use, Channel (MR) mode is going to be a whole lot more practical than Frequency (VFO) mode. However, Frequency (VFO) mode is very handy for experimentation out in the field. Frequency (VFO) mode is also used for programming channels into memory.
In Channel (MR) mode you can navigate up and down the channel by using the ▲ and ▼ keys.
Ultimately which mode you end up using will depend entirely on your use case.

5.5 Frequency (VFO) mode

In Frequency (VFO) mode you can navigate up and down the band by using the ▲ and ▼ keys. Each press will increment or decrement your frequency according to the frequency step you've set your transceiver to.
You can also input frequencies directly on your numeric keypad with kilohertz accuracy.

The following example assumes the use of a 12.5 kHz frequency step.
Example. Entering the frequency 432.6125 MHz on display *A*
a. Use the **[VFO/MR]** key to switch to Frequency (VFO) mode.
b. Press **[A/B]** until the ▲ icon appears next to the upper display.
c. Enter **[4][3][2][6][1][2][5]** on the numeric keypad.

WARNING!
Just because you can program in a channel does not mean you're automatically authorized to use that frequency. You may be tempted to use PMR446, FRS, GMRS and MURS (in USA) frequencies. Do note however that there are restrictions on these bands that make this transceiver illegal for use. Contact your local regulatory body for further information on what laws, rules and regulations apply to your area.

5.6 Channel (MR) mode

The use of Channel (MR) mode is dependent on actually having programmed in some channels to use.
Once you have channels programmed and ready, you can use the ▲ and ▼ keys to navigate between channels.
Note: ***If you have channels programmed with Transmit power set to Low, you can use the* [#MO] *key to momentarily switch over to mid or high power if you're having trouble getting through.***

Chapter6. Advanced Features

6.1 Frequency scanning

This function can scan the frequency.
a. In frequency mode, press **[*/scan]** key for more than 2 seconds. The radio will start scanning the frequency according to the set frequency step.
b. You can change the scanning direction with the ▲ and ▼ keys.
c. Press any key to stop the scanning.
Note: for Scan mode, see Menu No.18.

6.2 Channel scanning

This function can scan the channels.

a. In channels mode, press **[*scan]** key for more than 2 seconds. The radio will start scanning according to the channel you set.

b. You can change the scanning direction with the ▲and ▼ keys.

c. Press any key to stop scanning.

Note: for Scan mode, see Menu No.18.

6.3 Tone Scanning

Scanning for CTCSS and DCS Tones/Codes

Scanning for a CTCSS tone or DCS code can be done while Frequency Mode (VFO) or Channel Mode (MR) is selected. Only when VFO mode is selected, can the detected tone/code be saved to menu 11/10.

CTCSS tone and DCS code scanning mode can be accessed with or without a signal being present. The scanning process itself only occurs while a signal is being received.

Not all repeaters requiring a CTCSS tone or DCS code for access will transmit one back. In that case, the transmitter of a station that can access the repeater would need to be scanned. In other words: this would be done by listening to stations on the repeater's input frequency.

• Scanning for CTCSS Tone

1. Press the **[MENU] [1] [1]** to come to Menu 11: R-CTCS
2. Press the **[MENU]** key to select. **Insure you have a tone activated (and it is not off)**
3. Press the **[*SCAN]** to begin CTCSS scanning

A flashing "CT" will be in the left status display to indicate the radio is in CTCSS scanning mode. In this mode, whenever the radio is receiving an RF signal on the selected MR channel or VFO frequency, the lower display will cycle through the CTCSS tones as they are being tested. Once the frequency of the received CTCSS tone is determined, the "CT" indicator will stop flashing.

Press the **[MENU]** key to save the scanned tone into memory (VFO Mode Only) then press the **[EXIT]** key to exit the menu.

Don't forget to set VFO menu 11 back to OFF when the CTCSS tone is no longer required.

• Scanning for a DCS tone

1. Press the **[MENU] [1] [0]** to come to Menu 10: R-DCS
2. Press the **[MENU]** key to select. **Insure you have a tone activated (and it is not off)**
3. Press the **[*SCAN]** to begin DCS scanning

A flashing "DCS" will be in the left status display to indicate the radio is in DCS scanning mode. In this mode, whenever the radio is receiving an RF signal on the selected MR channel or VFO frequency, the lower display will cycle through the DCS codes as they are being tested. Once the bits of the received DCS code are determined, the "DCS" indicator will stop flashing.

Press the **[MENU]** key to save the scanned tone into memory (VFO Mode Only) then press the **[EXIT]** key to exit the menu.

Don't forget to set VFO menu 10 back to OFF when the DCS tone is no longer required.

6.4 Dual Watch

The BAOFENG5RX features Dual Watch functionality (single receiver) wit h the ability to lock the transmit frequency to one of the two channels it monitors.

• Enabling or disabling Dual Watch mode

1. Press the [MENU] [7] to get to MENU 7: **TDR**.
2. Press [MENU] key to select.
3. Use the ▲and ▼ keys to enable or disable.
4. Press the [MENU] key to confirm.
5. Press the [EXIT] key to exit the menu.

Due to the way the BAOFENG 5RX is constructed, whenever one of the A or B Frequencies (VFO/MR) goes active, it will default to transmit on that channel. This behavior can be inconvenient, especially if when monitoring a frequency, you should not transmit on. There is a menu option available to lock the transmitter to one of the A or B channels.

• Locking the Dual Watch transmit channel

1. Press the [MENU] [3][4] to get to MENU 34: TDR-AB.
2. Press [MENU] key to select.

3. Use the ▲and ▼ keys to select A (upper) or B (lower) display.
4. Press the [MENU] key to confirm.
5. Press the [EXIT] key to exit the menu.

If you want to momentarily override the lock without having to setting the menu option to OFF, you can do so by pressing the [A/B] key an instant before pressing the PTT.
Another option is to disable menu [7] (TDR) to override the lock. Then re-enable TDR when you want the lock resumed

6.5 Cursor▼▲Conversion (A/B)

Directly press **[A/B]** key to move the cursor up and down. Then, you can modify or confirm the parameters indicated by the cursor.
Important1: 5RX has a dual-frequency display function. In frequency mode, you will see on the display two different receiving and transmitting frequencies; while in channel mode the two different channels will be displayed.
Important2: In frequency or channel mode, press the **[A/B]** key to shift between the main channel A and the sub-channel B
▲ on the display indicates on which channel (main channel A or sub channel B) you are operating.
▼ is displayed next to the channel.

6.6 Keypad lock

This function locks the keypad to prevent accidental pressure of the controls.
To unlock the keypad, press **[#]** for more than 2 seconds.

6.7 FM Radio (FM)

The frequency range to listen to the radio is 76 -108MHz. When listening to broadcast FM, press **[A / B]** key switches between 76 -108 MHz band.
a. In frequency or channel mode, Press **[CALL]** to turn on the radio.
b. Select the desired radio frequency with the ▲ or ▼ keys or input the frequency. or
- Press [*** SCAN**] to automatically search a radio station.

c. Press [**CALL**] to exit FM radio.

Note: while you are listening to the radio, the frequency or channel of A / B receiving signal will

automatically switch to the frequency or channel mode for normal transmitting and receiving. When the signal disappears the radio will automatically switch again to FM radio mode.

6.8 Flashlight

This function is very useful for night illumination.
To turn it on press MON; push it again, the flash light will be strobe; push it again: it will turn off.

6.9 1000Hz, 1450Hz, 1750Hz Tone-burst

To send out a tone-burst; you simultaneously will press a key while holding down the PTT. No further configuration required using this feature.
The following configurations will transmit accordingly:

- **[PTT]** + **[CALL]** = Transmits 1000Hz Tone Burst
- **[PTT]** + **[VFO/MR]** = Transmits 1450Hz Tone Burst
- **[PTT]** + **[A/B]** = Transmits 1750Hz Tone Burst

If you have the keypad lock enabled on your radio, you can still send a 1750Hz tone the regular way without having to unlock your radio.

6.10 Manual Programming (Channels Memory)

Memory channels are an easy way to store commonly used frequencies so that they can easily be retrieved at a later date. The BAOFENG 5RX features 128 memory channels that each can hold: Receive and transmit frequencies, transmit power, group signaling information, bandwidth, ANI/ PTT-ID settings and a six character alphanumeric identifier or channel name [1].

Frequency Mode vs. Channel Mode
Switch between Modes by Using the **[VFO/MR]** Front Panel Button.
These two modes have different functions and are often confused.

Frequency Mode (VFO) : Used for a temporary frequency assignment, such as a test frequency or quick field programming if permitted.
Channel Mode (MR) : Used for selecting preprogrammed channels.
Ex 1. Programming a Channel Repeater Offset with CTCSS Tone

EXAMPLE New memory in Channel 10:
RX = 432.000 MHz
TX = 437.000 MHz (This is a (+ 5) Offset)
TX CTCSS tone 123.0

a. Change from Menu to Menu by pressing the **[EXIT]** key.
b. Set radio to VFO Mode by pressing **[VFO/MR]**
Channel number at the right will disappear.
c. [MENU] [2][8] [MENU] [1] [0] [MENU] [EXIT] **Deletes Prior Data in channel (Ex. 10)**
d. [MENU] [1][3] [MENU] 123.0 **[MENU] [EXIT]** **Selects desired TX encode tone**
e. Enter RX frequency (Ex. **432000**)
f. [MENU] [2][7] [MENU] [1][0] [MENU] **Enter the desired channel (Ex 10)**
-->>[EXIT] **RX has been added**
g. Enter TX frequency (Ex. **437000**)
h. [MENU] [2][7] [MENU] [1][0] [MENU] **Enter the same channel (Ex 10)**
-->> [EXIT] **TX has been added**
i. [VFO/MR] Return to MR Mode. **Channel number will re-appear.**

Ex 2. Programming a Simplex Channel with CTCSS tone

EXAMPLE New memory in Channel 10:
RX = 436.000 MHz
TX CTCSS tone 123.0

a. Change from Menu to Menu by pressing the **[EXIT]** button.
b. Set radio to VFO Mode by pressing **[VFO/MR]**
Channel number at the right will disappear.
c. [MENU] [2][8] [MENU] [1] [0] [MENU] [EXIT] **Deletes Prior Data in channel (Ex. 10)**
d. [MENU] [1][3] [MENU] 123.0 [MENU] [EXIT] **Select desired TX encode tone (Ex 123 CTCSS)**
-->>Use **[A/B]** to select Upper display
e. Enter RX frequency (Ex. 436000)
f. [MENU] [2][7] [MENU] [1][0] [MENU] **Enter the desired channel (Ex 10)**
-->> [EXIT] **Channel has been added**
g. [VFO/MR] Return to MR Mode. Channel number will re-appear.

6.11 Repeaters Programming

The following instructions assume that you know what transmit and receive frequencies your repeater employs, and that you're authorized to use it.

a. Set the radio to Frequency (VFO) mode with the **[VFO/MR]** key.
b. Enter the repeater's output (your receiving) frequency by either using the ▲ and ▼ keys, or by entering it directly on the numerical keypad.
c. Press the **[MENU]** key to enter the menu.
d. Enter **[2][6]** on the numeric keypad to get to frequency offset.
e. Press **[MENU]** key to select.
f. Use the numerical keypad to enter the specified frequency offset. See the section called "26 OFFSET - Frequency shift amount" for details.
g. Press **[MENU]** to confirm and save.
h. Enter **[2][5]** on the numeric keypad to get to offset direction.
i. Use the ▲/▼ keys to select + (positive) or - (negative) offset.
j. Press **[MENU]** to confirm and save.
k. Optional:
a). Save to memory, see the section called "Manual programming" for details.
b). Set up CTCSS; see the section called "CTCSS" for details.
l. Press **[EXIT]** to exit the menu. If everything went well, you should be able to make a test call through the repeater.

NOTE:

If you're experiencing problems making a connection to the repeater, check your settings and/or go through the procedure again.
Certain Amateur Radio repeaters (especially in Europe) use a 1750Hz tone burst to open up the repeater. To see how this is done with the BAOFENG 5RX *, see the section called "1750Hz Tone-burst".*
If you're still unable to make a connection, contact the person in charge of the radio system with your employer or your local amateur radio club, as the case may be.
If you for some reason want to listen to the repeater's input frequency instead, press [/SCAN] key momentarily and you'll reverse your transmit and receive frequencies.*
This is indicated in the LCD on the radio with an R in the top row, next to the + and - for the offset direction.

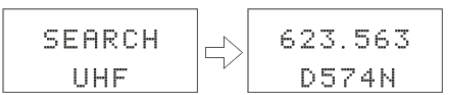
6.12 DTMF

DTMF is an in-band signaling method using dual sinusoidal signals for any given code. Originally developed for telephony systems, it has proved a very versatile tool in many other areas.
In two-way radio systems, DTMF is most commonly used for automation systems and remote control. A common example would be in amateur radio repeaters where some repeaters are activated by sending out a DTMF sequence (usually a simple single-digit sequence).

	1209 Hz	1336 Hz	1477 Hz	1633 Hz
697 Hz	1	2	3	A
770 Hz	4	5	6	B
852 Hz	7	8	9	C
941 Hz	*	0	#	D

The BAOFENG 5RX EU has a full implementation of DTMF, including the A, B, C and D codes. The numerical keys, as well as the **[*SCAN]**, and **[#]** , keys correspond to the matching DTMF codes as you would expect. The A, B, C and D codes are located in the [MENU], [▲], [▼] and **[EXIT]** keys respectively (†).
To send DTMF codes, press the key(s) corresponding to the message you want to send while holding down the PTT key.
If you have the keypad lock enabled on your radio, you can still send DTMF tones the regular way without having to unlock your radio.

6.14 One touch frequency Search



(1) The radio will act as a receiver. Press and hold the [**BAND**] key, and the screen will display "**SEARCH UHF**".
(2) If the transmitter continues to transmit and the unit receives an effective frequency (the strongest and stable signal), the received frequency will be displayed. If there is a CTCSS or DCS, the CTCSS or DCS value is displayed, and if there is no CTCSS or DCS, NONE is displayed

(3) You can press the **[MENU]** key to save the Search frequency and CTCSS or DCS to the channel.
Note: During frequency Search, press the* [#] *key on the radio to switch between UHF or VHF bands.

Chapter7. Working the MENU System

For a complete reference on available menu items and parameters, see **Appendix C, Shortcut Menu operations.**
Note: in channel mode, the setting of these features is not possible: CTCSS/ DCS tones, wide/narrow bandwidth, PTT-ID, Busy channel lock out, channel name edit.

7.1 Basic use

Using the menu with arrow keys
a. Press the **[MENU]** key to enter the menu.
b. Use the [▲] and [▼] keys to navigate between menu items.
c. Once you find the desired menu item, press **[MENU]** again to select that menu item.
d. Use the [▲] and [▼] keys to select the desired parameter.
e. When you've selected the parameter you want to set for a given menu item;
a). To confirm your selection, press **[MENU]** and it will save your setting and bring you back to the main menu.
b). To cancel your changes, press **[EXIT]** and it will reset that menu item and bring you out of the menu entirely.
f. To exit out of the menu at any time, press the **[EXIT]** key.

7.2 Using short-cuts

As you may have noticed if you looked at **Appendix C, Shortcut Menu operations**, every menu item has a numerical value associated with it. These numbers can be used for direct access of any given menu item.
The parameters also have a number associated with them, see **Appendix C, Shortcut Menu operations** for details.
Using the menu with short-cuts

a. Press the **[MENU]** key to enter the menu.
b. Use the numerical keypad to enter the number of the menu item.
c. To enter the menu item, press the **[MENU]** key.
d. For entering the desired parameter you have two options:
  a). Use the arrow keys as we did in the previous section; or
  b). Use the numerical keypad to enter the numerical short-cut code.
e. And just as in the previous section;
  a). To confirm your selection, press **[MENU]** and it will save your setting and bring you back to the main menu.
  b). To cancel your changes, press **[EXIT]** and it will reset that menu item and bring you out of the menu entirely.
f. To exit out of the menu at any time, press the **[EXIT]** key.
g. All further examples and procedures in this manual will use the numerical menu short- cuts.

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

Frequency band	FM76-108MHz; 108-136MHz(RX);136-174MHz (Rx); 220-260MHz (Rx); 350-390MHz(RX); 400-520MHz (Rx); 144-148 & 420-450MHz （America version) 144-148 & 430-450MHz （Canadian version)
Memory channels	128
Power supply	batteria Li-Ion da 7.4V/1800 mAh (BL-5)
Operating temperature	-10°C to + 45°C
Working mode	monoband/dualband
Modulation	F3E(FM)
Max. frequency deviation	≤ ±5KHz
Spurious radiation	< -60dB
Frequency stability	±2.5 ppm
Rx sensitivity	< 0.2uV
Audio output power	≥ 500mW
Dimensions	58x109x33mm (LxAxP)
Weight	208g

Specifications are subject to change without notice.

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.

Appendix C. - Shortcut Menu operations

MENU No.	Name (Full Name)	Enter item	Select able
0	SQL - Squelch Level	MENU+0	0-9 Levels 0:Lowest 9:Highest
1	STEP –Step Frequency	MENU+1	12.5K/25.0K
2	TXP – Transmit Power	MENU+2	HIGH:5W(VHF) 5W(UHF)*
3	SAVE - Battery Saving	MENU+3	OFF: 1:1 2:2 3:3 4:4
4	VOX - VOX	MENU+4	OFF, 1-9 OFF: off 1: Highest Sensitivity 9: Highest Sensitivity
5	WN-Wide/Narrow	MENU+5	WIDE:25.0K NARR:12.5K
6	ABR –Auto Backlight	MENU+6	OFF/1,2,3…8，9,10 ***Time-out for the LCD backlight. (seconds)**
7	TDR – Dual Watch Operation	MENU+7	OFF ON ***Monitor [A] and [B] at the same time. The display with the most recent activity ([A] or [B]) becomes the selected display.**
8	BEEP - Keypad Beep	MENU+8	OFF ON ***Allows audible confirmation of a key press.**

9	TOT- Time-Out-Timer	MENU+9	15,30…600S ***This feature provides a safety switch that limits transmission time to a programmed value. This will promote battery conservation by not allowing you to make excessively long transmissions, and in the event of a stuck PTT switch it can prevent interference to other users as well as battery depletion**
10	R-DCS - Receiver DCS	MENU+10	OFF D023N…D754N D023I …D754I ***Mutes the speaker of the transceiver in the absence of a specific low-level digital signal. If the station you are listening to does not transmit this specific signal, you will not hear anything.**
11	R-CTCS - Receiver CTCSS	MENU+11	OFF 67.0HZ…254.1HZ ***Mutes the speaker of the transceiver in the absence of a specific and continuous sub-audible signal. If the station you are Listening to does not transmit this specific and continuous signal, you will not hear anything.**
12	T-DCS -Transmitter DCS	MENU+12	OFF D023N…D754N D023I …D754I ***Transmits a specific low-level digital signal to unlock the squelch of a distant receiver (usually a repeater).**

13	T-CTCS - Transmitter CTCSS	MENU+13	OFF 67.0HZ…254.1HZ ***Transmits a specific and continuous sub audible signal to unlock the squelch of a distant receiver (usually a repeater).**
14	VOICE - Voice Reminding	MENU+14	OFF CHI ENG ***Allows audible voice confirmation of a key press.**
15	ANI-ID -ANI-ID	MENU+15	It can be programmed by software
16	DTMFST - DTMFST	MENU+16	OFF: No DTMF Side Tones are heard DT-ST : Side Tones are heard only from manually keyed DTMF codes ANI-ST: Side Tones are heard only from automatically keyed DTMF codes DT+ANI : All DTMF Side Tones are heard
17	S-CODE - Signal Code	MENU+17	1,…,15
18	SC-REV - Scanner Resume Method	MENU+18	TO : Time Operation - scanning will resume after a fixed time has passed CO : Carrier Operation -scanning will resume after the signal disappears SE : Search Operation -scanning will not resume
19	PTT-ID - PTT-ID	MENU+19	OFF: No ID is sent BOT: The selected S-CODE is sent at the beginning EOT: The selected S-CODE is sent at the ending BOTH : The selected S-CODE is sent at the beginning and ending

20	PTT-LT – PTT ID delay	MENU+20	0,1,2…,50ms ***PTT-ID Delay (milliseconds)**
21	MDF-A - Channel A Display Mode	MENU+21	FREQ: Displays programmed Frequency CH: Displays the channel number NAME: Displays the channel name ***Note: Names must be entered using software.**
22	MDF-B - Channel B Display Mode	MENU+22	FREQ: Displays programmed Frequency CH: Displays the channel number NAME: Displays the channel name ***Note: Names must be entered using software.**
23	BCL – Busy Channel Lock-out	MENU+23	OFF ON ***Disables the [PTT] button on a channel that is already in use. The transceiver will sound a beep tone and will not transmit if the [PTT] button is pressed when a channel is already in use.**
24	AUTOLK –Automatic Keypad Lock	MENU+24	OFF ON ***When ON, the keypad will be locked if not used in 8 seconds. Pressing the [#TO] key for 2 seconds will unlock the keypad.**
25	SFT-D – Frequency Offset Direction	MENU+25	OFF: TX = RX (simplex) +: TX will be shifted higher in frequency than RX - : TX will be shifted lower in frequency than RX
26	OFFSET -Frequency shift amount	MENU+26	00.000…69.990 ***Specifies the difference between the TX and RX frequencies**

27	MEM-CH - Store a Memory Channel	MENU+27	000…127 ***This menu is used to either create new or modify existing channels (0 through 127) so that they can be accessed from MR/Channel Mode**
28	DEL-CH - Delete a memory channel	MENU+28	000…127 ***This menu is used to delete the programmed information from the specified channel (0 through 127) so that it can either be programmed again or be left empty.**
29	WT-LED- Standby Backlight	MENU+29	OFF/ BLUE/ ORANGE/ PURPLE
30	RX-LED- Receive Backlight	MENU+30	OFF/ BLUE/ ORANGE/ PURPLE
31	TX-LED- Transmit Backlight	MENU+31	OFF/ BLUE/ ORANGE/ PURPLE
32	AL-MOD - Alarm Mode	MENU+32	SITE: Sounds alarm through your radio speaker only TONE: Sending alarm tone CODE: Sending alarm code
34	TDR-AB - Transmit selection while in Dual Watch mode	MENU+34	OFF A band transmit (Upper row frequency) B band transmit (Bottom row frequency) ***When enabled, priority is returned to selected display once the signal in the other display disappears.**
35	STE - Squelch Tail Elimination	MENU+35	ON OFF ***This function is used eliminate squelch tail noise between BAOFENG handhelds that are communicating directly (no repeater). Reception**

			of a 55 Hz or 134.4 Hz tone burst mutes the audio long enough to prevent hearing any squelch tail noise.
36	RP-STE-Squelch Tail Elimination	MENU+36	OFF/ 1,2,3…10 ***This function is used eliminate squelch tail noise when communicating through a repeater.**
37	RPT-RL - Delay the squelch tail of repeater	MENU+37	OFF/ 1,2,3…10 ***Delay the Tail Tone of Repeater (X100 milliseconds)**
38	PONMSG-Power On Message	MENU+38	FULL: Performs an LCD screen test at power-on MSG: Displays a 2-line power on message ***Controls the behavior of the display when the transceiver is turned on.**
39	ROGER - Roger Beep	MENU+39	OFF ON ***Sends an end-of-transmission tone to indicate to other stations that the transmission has ended.**
40	RESET – Restore defaults	MENU+40	VFO: Menu initialization ALL: Menu and channel initialization ***Resets the radio to factory defaults, with some exceptions.**

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.

PO FUNG ELECTRONIC (HK) INTERNATONAL GROUP COMPANY LIMITED

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

E-mail: wangjianhui@baofengradio.com **Http://www.baofengradio.com**

Print version: 5RX FCC V1.0