

BAOFENG UV-5RM

BAOFENG UV-5RM Two Way Radio User Manual

Model: UV-5RM

1. INTRODUCTION

The BAOFENG UV-5RM is a multi-band two-way radio designed for reliable communication across various environments. It features USB-C charging, a 1.77-inch LCD screen, 999 memory channels, and supports FRS, GMRS, VHF, UHF, AM/FM, and air band frequencies. This manual provides detailed instructions for setting up, operating, and maintaining your UV-5RM radio.

1.1. Included Components

- BAOFENG UV-5RM Radio Unit
- Antenna (Standard)
- 771 Antenna (Extended)
- Lithium-Ion Battery Pack
- USB-C Charging Cable
- Desktop Charger Cradle
- Power Adapter for Charger Cradle
- Belt Clip
- Hand Strap
- Programming Cable
- User Manual (this document)



Image 1.1: BAOFENG UV-5RM radio with all included accessories, including two antennas, battery, charger, cables, and belt clip.

2. PRODUCT OVERVIEW

Familiarize yourself with the physical components and controls of your BAOFENG UV-5RM radio.



Image 2.1: Front view of the BAOFENG UV-5RM radio with key components labeled, including antenna, flashlight, power/volume knob, FM button, PTT button, 1.77" LCD, 2-pin jack, mic, scan button, menu button, keypad, and USB-C port.

2.1. Key Components

- **Antenna:** For transmitting and receiving signals.
- **Power/Volume Knob:** Turns the radio on/off and adjusts volume.
- **Flashlight:** Integrated LED light.
- **PTT (Push-To-Talk) Button:** Press and hold to transmit, release to receive.
- **VFO/MR Button:** Switches between Frequency Mode (VFO) and Channel Mode (MR).
- **A/B Button:** Switches between upper (A) and lower (B) frequency displays.
- **Keypad:** For entering frequencies, channel numbers, and menu selections.
- **1.77" LCD Screen:** Displays frequency, channel, battery status, and menu options.
- **USB-C Port:** For direct battery charging.
- **2-Pin Jack:** For connecting external audio accessories (e.g., headset, speaker mic).

3. SETUP

3.1. Battery Installation

1. Ensure the radio is powered off.
2. Align the battery pack with the grooves on the back of the radio.
3. Slide the battery pack upwards until it clicks into place.
4. To remove, press the release latch at the bottom of the battery and slide it downwards.

3.2. Charging the Battery

The UV-5RM battery can be charged using the desktop charger cradle or directly via the USB-C port.



Image 3.1: The BAOFENG UV-5RM radio demonstrating both USB-C direct charging and charging using the desktop cradle.

3.2.1. Using the Desktop Charger Cradle

1. Connect the power adapter to the charger cradle and plug it into a wall outlet.
2. Place the radio (with battery installed) into the cradle.
3. The LED indicator on the cradle will show charging status (typically red for charging, green for fully charged).

3.2.2. Using the USB-C Port

1. Connect the provided USB-C cable to the USB-C port on the battery pack.
2. Connect the other end of the cable to a compatible USB power source (e.g., car charger, power bank, laptop, USB wall adapter).
3. The radio's screen or an indicator light will show charging status.

3.3. Antenna Attachment

1. Hold the base of the antenna and screw it clockwise onto the antenna connector on top of the radio until it is finger-tight. Do not overtighten.
2. For optimal performance, ensure the antenna is securely attached before operation.

3.4. Programming the Radio

While basic operation is possible out of the box, advanced features and channel management are best handled via programming software.

- Connect the provided programming cable to the 2-pin jack on the side of the radio and to your computer's USB port.
- Use compatible programming software (e.g., CHIRP) to configure frequencies, channels, and other settings. Refer to the software's documentation for detailed instructions.

4. OPERATING INSTRUCTIONS

4.1. Power On/Off and Volume

Rotate the Power/Volume knob clockwise to turn the radio on and increase volume. Rotate counter-clockwise to decrease volume and turn the radio off.

4.2. Frequency Mode (VFO) vs. Channel Mode (MR)

Press the **VFO/MR** button to switch between these modes:

- **VFO Mode:** Allows direct entry of frequencies and scanning.
- **MR Mode:** Allows selection of pre-programmed channels.

4.3. Selecting Frequencies/Channels

- In VFO mode, use the keypad to enter the desired frequency.
- In MR mode, use the **UP/DOWN** arrow buttons or the keypad to select a channel.
- Press the **A/B** button to switch between the upper and lower display lines, allowing you to monitor two frequencies simultaneously.

4.4. Transmitting and Receiving

- To transmit, press and hold the **PTT** button. Speak clearly into the microphone.
- Release the **PTT** button to stop transmitting and return to receive mode.
- Ensure you are on an appropriate frequency/channel before transmitting.

4.5. One-Key Match Frequency

This feature allows quick matching of frequencies with another radio.

One Key Match Frequency

Step1

Turn on the radio press and hold **MENU** to get the screen shows SEARCH



Step2

Press and hold the transmit of the other radio, when it finishes searching it displays the frequency and decode, press **MENU** for confirmation



Step3

Switch to channel mode to select the channel, the screen will show the frequency of counterparties you can feel free to communicate now



Image 4.1: Visual guide for the One-Key Match Frequency function, showing the radio display during search and confirmation steps.

1. **Step 1:** Turn on the radio. Press and hold the **MENU** button until the screen displays "SEARCH".
2. **Step 2:** Press and hold the transmit button (PTT) on the other radio. The UV-5RM will search for and display the frequency and decode information.
3. **Step 3:** Once the search is complete, press the **MENU** button to confirm and save the frequency to a channel. You can now communicate.

4.6. VOX Function (Voice Operated Transmit)

VOX allows hands-free transmission when it detects your voice. To activate/deactivate VOX:

1. Press **MENU**, then navigate to the VOX setting (usually menu item 4).
2. Use the **UP/DOWN** arrows to select an activation level (1-10) or OFF.
3. Press **MENU** again to confirm.

4.7. FM Radio Function

Press the **FM** button (often labeled with a musical note or "FM") to enter FM radio mode. Use the keypad or arrow buttons to tune to desired FM stations. Press **FM** again to exit.

5. ADVANCED FEATURES

The BAOFENG UV-5RM includes several advanced features accessible through the menu system.

- **DTMF (Dual-Tone Multi-Frequency):** Used for signaling, remote control, or accessing repeater functions.
- **Squelch:** Adjusts the receiver's sensitivity to block out weak signals and background noise. Higher levels require stronger signals to open the squelch.
- **Repeater Function:** Allows the radio to communicate over longer distances by utilizing a repeater station. Requires proper frequency and offset programming.
- **Scan:** Scans through frequencies or programmed channels to find active transmissions.
- **TOT (Time-Out Timer):** Limits the maximum transmission time to prevent accidental long transmissions and conserve battery.
- **BCL (Busy Channel Lockout):** Prevents transmission on a channel that is already in use.
- **Power-on Password Management:** Allows setting a password to prevent unauthorized use of the radio.
- **CTCSS/DCS (Tone Squelch):** Sub-audible tones used to filter out unwanted communications on a shared frequency.

Refer to the radio's on-screen menu for specific settings and adjustments for each feature.

6. MAINTENANCE

6.1. General Care

- Keep the radio dry. Avoid exposure to rain, moisture, or liquids.
- Clean the radio with a soft, damp cloth. Do not use harsh chemicals or solvents.
- Avoid extreme temperatures. Do not leave the radio in direct sunlight or in very cold environments.
- Do not drop or subject the radio to severe impacts.

6.2. Battery Care

- Charge the battery fully before first use.
- Do not overcharge or deep discharge the battery.
- If storing the radio for an extended period, remove the battery and store it in a cool, dry place at approximately 50% charge.
- Replace the battery if its operating time significantly decreases.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Radio does not power on.	Battery is dead or not installed correctly.	Charge the battery. Reinstall the battery securely.
Cannot transmit.	Incorrect frequency/channel. PTT button not pressed. TOT activated. BCL activated.	Verify frequency/channel. Press PTT firmly. Check TOT and BCL settings in menu.

Problem	Possible Cause	Solution
Poor reception or no audio.	Volume too low. Squelch level too high. Antenna loose or damaged. Out of range.	Increase volume. Lower squelch level. Check antenna connection. Move closer to transmitting radio.
Battery not charging.	Charger/cable faulty. Battery not seated correctly. USB power source insufficient.	Check charger/cable. Re-seat battery. Use a reliable USB power source.

8. SPECIFICATIONS

Feature	Detail
Model Number	UV-5RM
Brand	BAOFENG
Display	1.77-inch LCD Screen
Number of Channels	999
Frequency Range	VHF/UHF 144-148 MHz / 420-450 MHz (Multi-Band, FRS, GMRS, AM/FM, Air Band coverage)
Talking Range (Maximum)	6 Miles (approx. 3-5 miles typical range)
Battery Type	Lithium Ion (1 included)
Charging	USB-C, Desktop Charger Cradle
Voltage	7.4 Volts (DC)
Water Resistance Level	Not Water Resistant
Item Weight	1.54 pounds (approx.)
Package Dimensions	8.07 x 4.64 x 4.13 inches

9. WARRANTY AND SUPPORT

9.1. Warranty Information

A 1-year warranty is provided for the BAOFENG UV-5RM radio. This warranty is exclusively offered through "Shiqun Electronics Co., Ltd." Please retain your proof of purchase for warranty claims.

9.2. Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact the seller or authorized BAOFENG service center. Refer to your purchase documentation for specific contact details.

