BAOFENG UV-22R

BAOFENG UV-22R Two-Way Radio User Manual

Model: UV-22R | Brand: BAOFENG

1. INTRODUCTION

The BAOFENG UV-22R is a versatile and powerful two-way radio designed for reliable communication in various environments. Featuring a 1.77-inch LCD screen, 999 programmable channels, and convenient USB-C charging, it is suitable for outdoor adventures, professional use, and emergency preparedness. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your UV-22R radio.

2. WHAT'S IN THE BOX

Please check the package contents carefully. If any items are missing or damaged, contact your retailer.

- 2 x Portable Radio (BAOFENG UV-22R)
- 2 x Original High Gain Antenna
- 2 x Type-C Charger Cable
- 2 x 2500mAh Li-ion Battery
- 2 x Belt Clip
- 2 x Sling
- 2 x Charger (Desktop Charging Cradle)
- 2 x User's Manual
- 2 x 18.89in Tactical Antenna
- 2 x Shoulder Speaker Microphone

3. PRODUCT OVERVIEW

Familiarize yourself with the main components of your BAOFENG UV-22R radio.

Figure 3.1: Front view of the BAOFENG UV-22R radio, highlighting its 999 channel capacity, 5-watt high power output, 2800mAh battery, and 1.77-inch LCD screen.

Figure 3.2: Detailed view of the 1.77-inch colorful LCD screen, showing its clarity and information display capabilities.

Figure 3.3: Internal speaker design, engineered for high-quality voice transmission and reception.

Key Components:

- **Antenna:** For transmitting and receiving signals.
- **PTT Button:** Push-to-Talk button for transmitting.
- **Speaker/Microphone:** For audio output and input.
- **LCD Display:** 1.77-inch screen for displaying channels, frequencies, and menu options.
- **Keypad:** For entering frequencies, channel numbers, and accessing menu functions.
- **Volume/Power Knob:** To turn the radio on/off and adjust volume.
- **Channel/Frequency Knob:** To select channels or adjust frequency.
- **USB-C Charging Port:** For direct charging of the radio.
- **Accessory Port:** Two-pin port for external speaker/microphone or programming cable.

4. SETUP

4.1 Battery Installation

1. Ensure the radio is powered off.
2. Align the 2500mAh Li-ion battery with the battery compartment on the back of the radio.
3. Slide the battery into place until it clicks securely. To remove, press the release latch (if present) and slide the battery out.

4.2 Antenna Attachment

1. Screw the desired antenna (Original High Gain or 18.89in Tactical Antenna) clockwise onto the connector on top of the radio until it is finger-tight. Do not overtighten.

4.3 Initial Charging

Before first use, fully charge the battery.

- **Using the Desktop Charger:** Place the radio with the battery installed into the desktop charging cradle. Ensure the charging indicator light illuminates.
- **Using USB-C:** Connect the Type-C charger cable to the USB-C port on the side of the radio and to a compatible USB power source (e.g., wall adapter, power bank, car charger, laptop). The charging indicator on the radio will show charging status.

Charging typically takes several hours. The indicator light will change when charging is complete.

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5. OPERATING INSTRUCTIONS

5.1 Power On/Off and Volume

1. To power on, rotate the Volume/Power knob clockwise until you hear a click.
2. Continue rotating to adjust the volume.
3. To power off, rotate the knob counter-clockwise until it clicks.

5.2 Channel and Frequency Selection

The UV-22R supports 999 memory channels and VFO (Variable Frequency Oscillator) mode for direct frequency input.

- **Channel Mode:** Use the Channel/Frequency knob or the keypad to select a stored channel.
- **VFO Mode:** Enter frequencies directly using the keypad. The frequency step can be set between 2.5K, 5.0K, 6.25K, 10.0K, 12.5K, 20.0K, 25.0K, and 50.0K via the menu.

5.3 Transmitting and Receiving (PTT)

1. To transmit, press and hold the PTT button on the side of the radio. Speak clearly into the microphone.
2. Release the PTT button to stop transmitting and return to receive mode.

5.4 Scanning Functions

The radio offers various scanning capabilities:

Figure 5.1: The radio performing a one-step frequency scan to easily find active frequencies.

- **VFO Scan:** Scans within a defined frequency range.
- **Channel Scan:** Scans through programmed memory channels.
- **CTC/DCS Scan:** Scans for CTCSS/DCS tones/codes.

Refer to the menu settings for detailed instructions on activating and configuring scan modes and recovery methods.

5.5 DTMF Function

The UV-22R includes DTMF encoder and manual dial capabilities for advanced signaling.

Figure 5.2: Illustration of the DTMF function, enabling analog signaling for single, group, or all calls.

- Use the keypad to enter DTMF codes for specific functions or selective calling.

5.6 NOAA Weather Radio

The radio supports NOAA weather alerts, providing access to important weather information.

- Access the NOAA function through the radio's menu to receive weather broadcasts.

5.7 Other Key Features

- **FM Broadcast Radio:** Tune into standard FM radio stations.
- **VOX (Voice Activated Transmit):** Allows hands-free operation by transmitting when it detects your voice.
- **Keypad Lock:** Prevents accidental key presses.
- **Dual Watch/Dual Reception:** Monitors two frequencies or channels simultaneously.
- **Squelch Adjustment:** Ten levels of squelch adjustment to filter out weak signals and background noise.
- **High/Low Power:** Select between high (5W) and low power output to conserve battery or for short-range communication.

- **CTCSS/DCS Tones:** 50 CTCSS tones and 105 DCS codes for private group communication.

6. MAINTENANCE

6.1 Cleaning

- Wipe the radio's surface with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- Ensure the radio is dry before use or charging.

6.2 Battery Care

- Charge the battery fully before initial use.
- Avoid overcharging or completely draining the battery to prolong its lifespan.
- Store the battery in a cool, dry place when not in use for extended periods.

6.3 Antenna Care

- Avoid bending or twisting the antenna excessively.
- Ensure the antenna is securely attached during operation.

7. TROUBLESHOOTING

If you encounter issues with your UV-22R radio, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Radio does not power on	Battery is low or not installed correctly.	Charge the battery or re-install it correctly.
Cannot transmit or receive	Incorrect frequency/channel, antenna not attached, or low battery.	Verify frequency/channel, ensure antenna is secure, charge battery.
Poor audio quality	Weak signal, incorrect squelch setting, or antenna issue.	Adjust squelch level, check antenna connection, move to an area with better signal.
Keypad unresponsive	Keypad lock is active.	Disable keypad lock via menu or specific key combination (refer to radio display).

8. SPECIFICATIONS

Detailed technical specifications for the BAOFENG UV-22R radio:

Figure 8.1: Physical dimensions and weight of the BAOFENG UV-22R radio.

- **Item Model Number:** UV-22R
- **Item Weight:** 3 pounds (approximately 1.36 kg)
- **Product Dimensions:** 1.5"D x 2.4"W x 5"H (approximately 3.8 x 6.1 x 12.7 cm)
- **Batteries:** 2 Lithium Ion batteries required (2500mAh included)
- **Number of Channels:** 999
- **Special Features:** 1.77in LCD Screen, Long Range, NOAA, One Key Match Frequency, USB-C Charging
- **Frequency Range:** VHF: 144-148MHz, UHF: 420-450MHz (Four-band handheld transceiver also includes FM broadcast)
- **Talking Range Maximum:** 3.1 Miles (approximately 5 km)
- **Voltage:** 7.4 Volts (DC)
- **Water Resistance Level:** Not Water Resistant
- **Display:** 1.77-inch large screen, full keyboard
- **Frequency Step:** Selectable (2.5K, 5.0K, 6.25K, 10.0K, 12.5K, 20.0K, 25.0K, 50.0K)
- **CTCSS Tones:** 50

- **DCS Codes:** 105
- **Accessory Port:** Two (2) pins

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The BAOFENG UV-22R radio comes with a **1-year warranty**. This warranty is provided exclusively 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 manufacturer directly. Refer to your purchase documentation for specific contact details.