

Arcshell AR-6

Arcshell AR-6 Two-Way Radio Instruction Manual

Model: AR-6

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1. INTRODUCTION

Thank you for choosing the Arcshell AR-6 Two-Way Radio. This manual provides essential information for the safe and efficient operation of your device. Please read it thoroughly before use and retain it for future reference.

2. PRODUCT OVERVIEW

The Arcshell AR-6 is a compact and user-friendly two-way radio designed for reliable communication. Key features include:

- **Compact and Durable Design:** Measuring 4.3 inches in height, 1 inch thick, and 2 inches in width, weighing 5.5 oz. It features a solid, water-resistant build and includes a removable belt clip for convenience.
- **16 Channels with Voice Annunciation:** Equipped with 16 channels, each pre-programmed with identical frequencies. A 16-position mechanical rotary switch allows for easy channel selection, with a synthesized voice announcing the selected channel number.
- **Rechargeable Li-ion Battery:** Comes with a 1500mAh rechargeable Li-ion battery and a dedicated charging dock. The charger supports 110v-240v AC input and takes approximately 2.5 hours for a full charge. Battery life ranges from 8 to 96 hours depending on transmission usage. The radio also features a USB Type-C charging port.
- **Clear Audio and Earpiece:** Features a high-quality built-in speaker for loud and clear sound, a Push-to-Talk (PTT) button, and a built-in microphone. A single-earbud style earpiece with a microphone and PTT button is included, utilizing K-type 3.5mm and 2.5mm plugs. When the earpiece is connected, the radio's internal speaker is muted.
- **VOX Functionality:** Supports Voice Operated Transmission (VOX) for hands-free communication.
- **Extended Range:** Offers a communication range of up to 5 miles in unobstructed environments, with reduced range in congested areas. Ideal for various applications including commercial construction, security teams, maintenance, warehouses, hospitality, retail, events, and outdoor activities.

3. PARTS IDENTIFICATION

Familiarize yourself with the components of your Arcshell AR-6 Two-Way Radio:



Figure 3.1: Arcshell AR-6 Two-Way Radio Components

This image displays the Arcshell AR-6 radio with key parts labeled, including the antenna, flashlight, PTT button, monitor button, function button, channel switch, power switch/volume control, LED indicator, speaker/microphone jacks, and built-in microphone.

- **Antenna:** For transmitting and receiving signals.

- **Flashlight:** Integrated LED light for illumination.
- **PTT Button (Push-to-Talk):** Press and hold to transmit your voice.
- **Moni Button (Monitor):** Used to temporarily disable squelch and listen for weak signals.
- **Function Button:** Activates additional features (e.g., scan, VOX).
- **Channel Switch:** Rotary knob to select one of the 16 available channels.
- **Power Switch/Volume Control:** Rotary knob to turn the radio on/off and adjust the speaker volume.
- **LED Indicator:** Displays status such as transmission (red) or reception (green).
- **SP/MIC Jacks:** Ports for connecting external earpieces or microphones.
- **MIC (Microphone):** Built-in microphone for voice input.
- **USB Type-C Port:** For direct charging of the radio.

4. SETUP

4.1. Battery Installation and Charging

1. Ensure the radio is powered off.
2. Align the Li-ion battery with the battery compartment on the back of the radio and slide it into place until it clicks securely.
3. To charge, connect the charging dock to a 110v-240v AC power outlet.
4. Place the radio (with battery installed) into the charging dock. The LED indicator on the charger will show **red** during charging and turn **green** when fully charged.
5. Alternatively, you can charge the battery alone by placing it directly into the charging dock.
6. The radio also features a USB Type-C port for direct charging using a compatible USB-C cable and power adapter (not always included).





Figure 4.1: Charging the Arcshell AR-6 Radio

This image shows the Arcshell AR-6 radio placed in its charging dock, indicating the charging process. An earpiece is also connected to the radio.





Figure 4.2: USB Type-C Charging Port

A side view of the Arcshell AR-6 radio, pointing out the USB Type-C port for alternative charging.

4.2. Attaching Accessories

- **Belt Clip:** Secure the removable belt clip to the designated slots on the back of the radio.
- **Earpiece:** Insert the K-type plugs of the earpiece into the SP/MIC jacks on the side of the radio. Ensure

a firm connection. When the earpiece is connected, the radio's internal speaker will be silent, and all audio will be routed to the earpiece.

5. OPERATING INSTRUCTIONS

5.1. Power On/Off and Volume Adjustment

To power on the radio, rotate the Power Switch/Volume Control knob clockwise. A voice prompt will announce "Power On" and the current channel number. Continue rotating the knob clockwise to increase the volume, and counter-clockwise to decrease it. To power off, rotate the knob counter-clockwise until it clicks.

5.2. Channel Selection

Rotate the Channel Switch knob to select your desired communication channel (1-16). A synthesized voice will announce the channel number as you switch. Ensure all radios in your group are set to the same channel for communication.

5.3. Transmitting and Receiving

- **To Transmit:** Press and hold the PTT (Push-to-Talk) button on the side of the radio. Speak clearly into the microphone (located below the speaker grille) at a normal speaking volume. The LED indicator will glow red during transmission. Release the PTT button when you are finished speaking.
- **To Receive:** Ensure the PTT button is not pressed. The radio will automatically receive signals on the selected channel. The LED indicator will glow green when a signal is being received.

5.4. VOX Function (Voice Operated Transmission)

The AR-6 supports VOX, allowing for hands-free transmission when enabled. When VOX is active, the radio will automatically transmit when it detects your voice, and stop transmitting when you stop speaking. Refer to the advanced programming software for details on enabling and adjusting VOX sensitivity.

5.5. Scanning for Channels

The radio can scan for active channels. Consult the full programming guide or software for instructions on how to activate and configure the scanning feature using the Function Button.

Video 5.1: Arcshell AR-6 Two-Way Radio Overview

This video provides a visual guide to the main features and basic operation of the Arcshell AR-6 Two-Way Radio, including power on/off, channel selection, and Push-to-Talk functionality.

6. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Do not use harsh chemicals or abrasive cleaners.
- **Battery Care:** To prolong battery life, avoid overcharging or completely draining the battery. Store the radio and battery in a cool, dry place when not in use for extended periods.
- **Antenna:** Do not bend or modify the antenna, as this can affect performance.
- **Water Resistance:** While water-resistant, avoid submerging the radio in water. Ensure all port covers are securely closed in wet conditions.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Radio does not power on.	Battery is low or not installed correctly.	Charge the battery or ensure it is properly seated.
Cannot transmit or receive.	Incorrect channel selected; out of range; battery low.	Verify channel matches other radios; move closer to other radios; charge battery.
Poor audio quality or static.	Weak signal; interference; volume too low/high.	Move to an open area; adjust volume; check earpiece connection.
Battery life is shorter than expected.	Frequent transmissions; battery degradation.	Reduce transmission time; consider replacing the battery if old.

8. SPECIFICATIONS

Feature	Detail
Model Number	AR-6
Item Weight	1.57 pounds
Product Dimensions	1 x 2 x 4.3 inches
Batteries	2 Lithium Ion batteries required (included)
Number of Channels	16
Special Feature	USB Type-C Port for Charging
Frequency Range	406.1-470 MHz
Talking Range Maximum	5 Miles (unobstructed)
Voltage	3.7 Volts
Water Resistance Level	Water Resistant

9. WARRANTY & SUPPORT

Arcshell products are designed for reliability and performance. For specific warranty information, please refer to the documentation included with your purchase or visit the official Arcshell website. For technical support, troubleshooting assistance, or inquiries about replacement parts, please contact Arcshell customer service through the contact information provided on the product packaging or their official support channels.