

Retevis H1

Retevis Ailunce H1 DMR Radio User Manual

MODEL: H1

Your comprehensive guide to operating and maintaining your Ailunce H1 DMR Radio.

1. Introduction

The Retevis Ailunce H1 is a high-performance Dual Band DMR amateur radio transceiver designed for reliable communication. Featuring advanced functionalities such as GPS/APRS for real-time location tracking, Talk Alias for easy contact identification, and robust security alarms, the H1 is built for both amateur radio enthusiasts and demanding outdoor activities. Its durable PC and ABS construction ensures resilience against drops and impacts, making it an ideal companion for various environments.



Figure 1.1: Retevis Ailunce H1 DMR Radio with its antenna.

2. What's in the Box

Upon unboxing your Retevis Ailunce H1, please verify that all the following components are included:

- H1 Amateur Radio Unit (x1)
- 2900mAh Lithium-Ion Battery (x1)
- Type-C Charging Cable (x1)
- Desktop Charging Base (x1)
- Data Cable (x1)
- Belt Clip (x1)
- Hand Strap (x1)
- User Manual (x1)



Figure 2.1: All components included in the Retevis Ailunce H1 package.

3. Setup Guide

3.1 Battery Installation

1. Ensure the radio is powered off.
2. Align the battery with the battery compartment on the back of the radio.
3. Gently push the battery into place until it clicks securely.
4. To remove, slide the battery release latch (if present) and pull the battery out.

3.2 Antenna Attachment

1. Locate the antenna connector on the top of the radio.
2. Screw the provided antenna clockwise onto the connector until it is finger-tight. Do not overtighten.

3.3 Initial Charging

Before first use, fully charge the battery. The Ailunce H1 offers flexible charging options:

- **Using Desktop Charging Base:** Place the radio with the battery installed into the desktop charging base. Connect the power adapter to the base and a power outlet.
- **Using Type-C Cable:** Connect the Type-C charging cable directly to the Type-C port on the radio and to a compatible USB power source.

The charging indicator light will show the charging status (e.g., red for charging, green for fully charged).

3.4 Powering On/Off

- **To Power On:** Press and hold the power button (usually marked with a power symbol) until the screen illuminates.
- **To Power Off:** Press and hold the power button until the screen turns off.

4. Operating Instructions

4.1 GPS/APRS Functionality

The Ailunce H1 integrates GPS and APRS capabilities for enhanced situational awareness.

- **GPS:** Provides real-time location tracking of your radio. This allows you to pinpoint your own position and measure distances to other team members, crucial for coordinated activities.
- **APRS (Automatic Packet Reporting System):** Supports data transmission, enabling you to track your position on a website or share location information with other APRS-enabled devices. This is particularly useful for outdoor adventures and emergencies.



Figure 4.1: The radio's display showing GPS/APRS functionality for real-time location and data transmission.

Funzione GPS

Individua la posizione in tempo reale e misura la distanza tra i compagni di squadra durante la competizione ham.



Figure 4.2: GPS function in use, showing real-time location and distance measurement between team members during ham competitions.

4.2 Talk Alias

The Talk Alias feature allows amateur radio enthusiasts to set a displayed name for their contacts. This makes it convenient and quick to identify and remember teammates, streamlining communication during events.



Figure 4.3: The radio's display showing a contact's Talk Alias, "David".

4.3 Contact Management

The Ailunce H1 DMR radio boasts a large contact capacity, supporting the import of up to 500,000 contacts and featuring 4000 channels. This extensive capacity makes it easy to name and manage a vast network of contacts, ensuring efficient communication for ham radio enthusiasts.



Figure 4.4: Visual representation of the radio's large contact capacity, supporting 500,000 imported contacts and 4000 channels.

4.4 AES256 Encryption

Equipped with AES256 encryption, the Ailunce H1 ensures robust communication security. Its 256-bit keys provide compatibility with Motorola systems, offering strong protection for your communications, especially valuable in competitive amateur radio environments.

Lone Worker

Un valido aiuto per avvisare i compagni e tenerti al sicuro quando sei da solo.

Figure 4.5: AES256 encryption ensures secure communication, compatible with Motorola 32-bit systems.

4.5 Multi-Alarm Function

The Ailunce H1 features three distinct alarm modes to enhance user safety:

- **Emergency Alarm:** Activates an alarm for immediate safety in critical situations.
- **Lone Worker:** Provides a safety mechanism for individuals working alone, ensuring help can be summoned if needed.
- **Man Down:** Automatically triggers an alert if the radio detects that the user has fallen, notifying others to ensure safety.



Figure 4.6: The radio's display showing options for Emergency Alarm, Lone Worker, and Man Down functions.



Figure 4.7: Emergency alarm mode provides multiple options and increases safety in emergencies.

4.6 Same-Frequency Relay

The same-frequency relay feature enhances coverage range and improves communication quality, allowing for more reliable and extended communication between radios.



Figure 4.8: Illustration of how same-frequency relay enhances communication range and quality.

5. Battery and Charging

The Ailunce H1 is powered by a robust 2900mAh rechargeable Lithium-Ion battery, designed to provide extended operating times for all-day outdoor use.

- **Operating Time (Analog Channel Mode):** Approximately 16 hours
- **Operating Time (Digital Channel Mode):** Approximately 25 hours

The radio supports convenient Type-C charging and also includes a desktop charger for flexible power options.



Figure 5.1: The 2900mAh battery provides long operating times, with Type-C charging for convenience.

6. Maintenance

- **Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Avoid harsh chemicals or abrasive cleaners.
- **Battery Care:** To prolong battery life, avoid fully discharging the battery frequently. Store the radio and battery in a cool, dry place when not in use for extended periods.
- **Storage:** When storing the radio, ensure it is powered off and disconnected from any charging sources. Keep it away from extreme temperatures and direct sunlight.
- **Antenna:** Periodically check the antenna connection to ensure it is secure.

7. Troubleshooting

Problem	Possible Cause	Solution
Radio does not power on.	Battery is low or not installed correctly.	Charge the battery or re-install it securely.
No signal or poor reception.	Antenna not attached properly; out of range; interference.	Check antenna connection; move to an open area; check for local interference.

Problem	Possible Cause	Solution
Cannot transmit.	Incorrect frequency/channel; PTT button malfunction.	Verify channel settings; ensure PTT button is not stuck.
Display is blank or frozen.	Software glitch; low battery.	Try restarting the radio; charge the battery. If issue persists, contact support.

8. Specifications

Feature	Detail
Brand	Retevis
Model	H1
Dimensions	4 x 6 x 16 cm (1.57 x 2.36 x 6.3 inches)
Weight	650 grams (1.43 lbs)
Battery Type	Lithium-Ion
Battery Capacity	2900 mAh
Voltage	7.4 Volts
Number of Channels	4000
Frequency Spectrum	144-146 MHz; 430-440 MHz
Tuner Technology	U;V (UHF/VHF)
Special Feature	Dual Band
Water Resistance Level	Not water resistant
Material	PC and ABS

9. Warranty and Support

For warranty information, technical support, or service inquiries regarding your Retevis Ailunce H1 DMR Radio, please refer to the warranty card included with your product or visit the official Retevis website. You may also contact Retevis customer service directly for assistance.

Retevis Official Website: www.retevis.com

Please retain your proof of purchase for any warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question