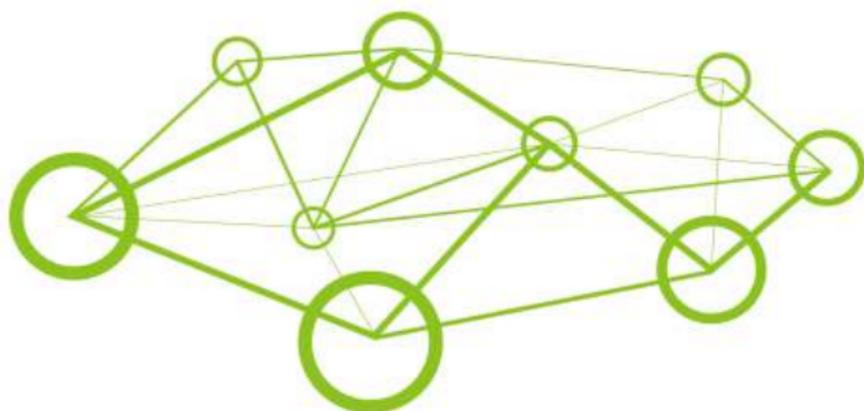


Narrowband Mesh Radio

Operation Instruction



B-hop Mesh

Product Features

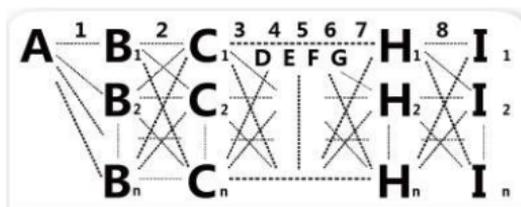
Ultra-long Distance Communication

Excellent signal-to-noise ratio threshold (1dBm) and receiving sensitivity (-125dBm), single-hop distance is better than other similar products.



8-hop Narrowband Mesh

There is no need for time service, start-up 10ms to build the network, support 8-hop narrowband mesh, expand the communication distance by 8 times, the handheld station can also self-organize without a base station.



Encrypted Communication

Unique communication mechanism, with AES256 encryption, to achieve super-encrypted communications.



IP 67 Protection

Support IP67 protection standards.



Overall Introduction

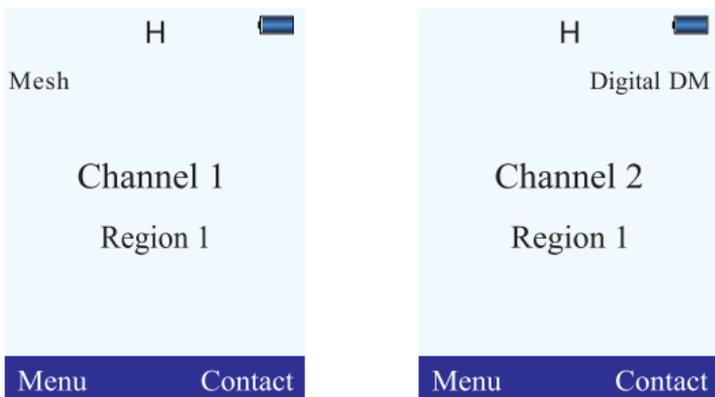


No.	Description	No.	Description	No.	Description	No.	Description
①	SOS button	⑥	Antenna	⑪	Contact	⑬	Numeric keys
②	PTT button	⑦	Indicator light	⑫	Up & Down	⑭	Headphone jack
③	Power switch button	⑧	Microphone	⑬	Back button	⑮	Belt clip
④	Channel knob	⑨	Display screen	⑭	Home	⑯	Battery
⑤	Volume knob	⑩	OK button	⑮	Loudspeaker		

Function Introduction

Channel Switch

Switch the channel by turning the "Channel knob",each channel supports three modes: Mesh, Digital, Analog (individual models only support Mesh mode),Main Interface as shown in the figure.



Voice Call

The device supports three voice modes: all call, personal call , and group call. You can switch between them on Contact Interface.

- All Call

With All Call in the "Group Contact" of the contact mode selected, press the "PTT" key to call all members in the same channel.

- Personal Call

With Personal Call in the "Personal Contact" of the contact mode selected,or entering a member in the Dialing,press the "PTT" key to call this selected member in the same channel.

● Group Call

With Group Call in the "Group Contact" of the contact mode selected, press the "PTT" key to call all members within a same group in the same channel.

One Key for Alarm

Press and hold the "SOS" key for more than 3 seconds, the unit will give an audible and visual alarm, it will send a high-decibel tone for seeking rescue, and the screen will flash at the same time. Press and hold the "SOS" key for more than 3 seconds again to cancel SOS.

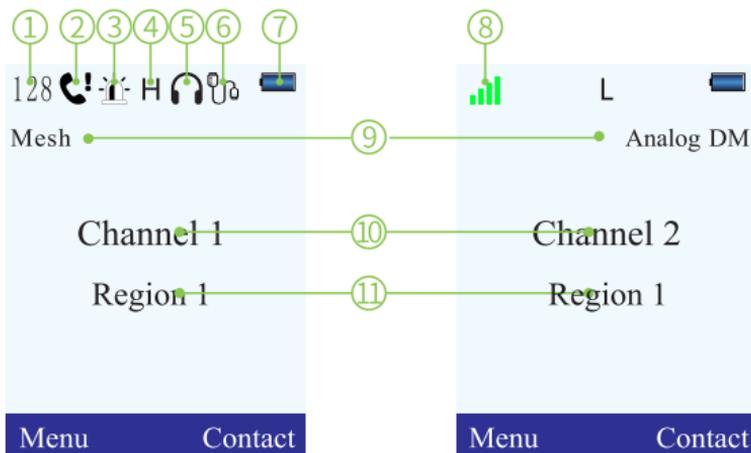
Encrypted Communication

Users can write an encryption code to the unit via the "Write Frequency Software". Only units with the same encryption code can communicate.

Interface Introduction

Main Interface

Turn the "Volume Knob" clockwise to turn on the unit and enter the Main Interface, as shown in the figure.



① Display value of bottom noise

Display the absolute value of the noise floor of the current channel. The actual noise floor is $-(\text{display value})$ dBm. The larger the displayed value, the lower the noise floor, the cleaner the channel, and the less interference. When the display value is greater than or equal to 125 (ie when the noise floor is less than or equal to -125 dBm), the channel environment interference is small, and the ideal distance can be played; when the display value is less than 115 (ie when the noise floor > -115 dBm), the channel environment interference is large, and the communication distance is reduced. It is recommended Change channel.

② Missed call notification icon

This icon is displayed when there is a missed call in the contact, otherwise it will not be displayed.

③ Sound-light alarm icon

This icon is displayed when the sound-light alarm is turned on, otherwise it will not be displayed.

④ Transmission power icon

When the unit is in the high power state, the "H" icon is displayed; when the unit is in the low power state, the "L" icon is displayed. Press and hold the "Power Switch" key for 3 seconds on any interface to switch the transmit power of the current channel.

⑤ Headphone connection icon

This icon is displayed when a headphone unit is connected, otherwise it will not be displayed.

⑥ Write frequency connection icon

This icon is displayed when a write frequency unit is connected, otherwise it will not be displayed.

⑦ Battery indicator

Display the electric quantity range of the device:

 100%-81%  80%-61%  60%-41%

 40%-21%  20%-6%  5%-0%

⑧ Signal strength icon

When the device receives the signal, the signal strength is displayed, otherwise it will not be displayed. Full grid is the strongest, the opposite is the weakest. When the signal has only one grid, it will enter the communication limit area. It is recommended to retreat until the signal reaches two grids and set up a relay to ensure stable signal reception at the relay point.

⑨ Mode

Display the mode of the channel where the unit is on.

⑩ Channel

Display the channel where the unit is on.

⑪ Region

Display the region where the unit is on.

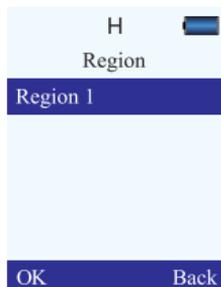
Menu Interface

Press the "Menu" key on the Main Interface to enter the Menu Interface, as shown in the figure.



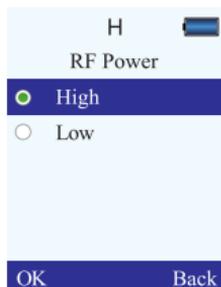
Region Screen

After selecting "Region" on the Menu Interface, press "OK" key to enter the Region Screen, as shown in the figure. press "Up & Down" key to switch a region, press "OK" key to change.



RF Power Screen

After selecting "RF Power" on the Menu Interface, press "OK" key to enter the RF Power Screen, as shown in the figure. You can choose high or low the RF Power tone.



Settings Screen

After selecting "Settings" on the Menu Interface, press "OK" to enter the Settings Screen, as shown in the figure.



● Backlight Interface

After selecting "Backlight" on the Settings Screen, press "OK" to enter the Backlight Interface, as shown in the figure. You can select how long the screen will be turned off the screen since you do not operate the unit.

● Keyboard Lock Interface

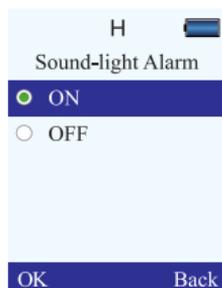
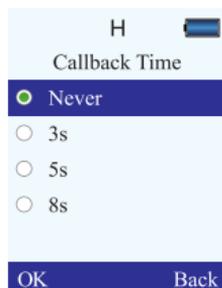
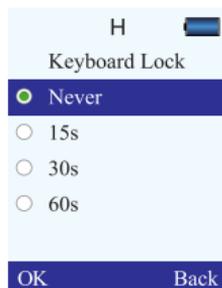
After selecting "Keyboard Lock" on the Settings Screen, press "OK" to enter the Keyboard Lock Interface, as shown in the figure. You can select how long the screen will be locked since you do not operate the unit.

● Callback Time Interface

After selecting "Callback Time" on the Settings Screen, press "OK" to enter the Callback Time Interface, as shown in the figure. After the received voice call ends, it will be in the callback time, during which time you can quickly reply to the current call.

● Sound-light Alarm Screen

After selecting "Sound-light Alarm" on the Settings Screen, press "OK" to enter the Sound-light Alarm Screen. You can choose turning on or off the Sound-light Alarm tone.



● Start-up Tone Screen

After selecting "Start-up Tone" on the Settings Screen, press "OK" to enter the Start-up Tone Screen. You can choose turning on or off the Start-up Tone .

Language Interface

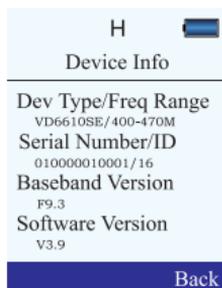
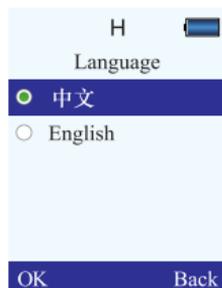
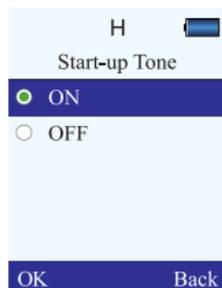
After selecting "Language" on the Menu Interface, press "OK" to enter the Language Settings Screen, as shown in the figure.

Device Info Screen

After selecting "Device Info" on the Menu Interface, press "OK" to enter the Device Info Screen, as shown in the figure.

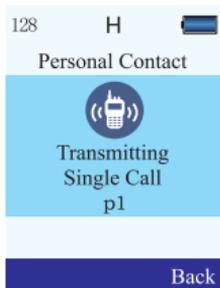
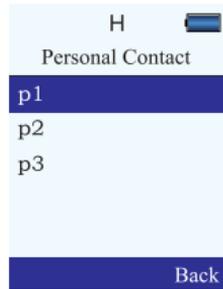
Contact Interface

Press the "Contact" key on any interface or press the "Back" key on the Main Interface to enter the address book interface, as shown in the figure.



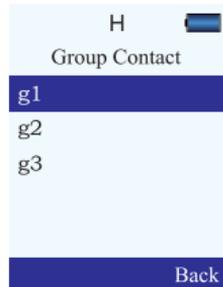
Personal Contact Interface

After selecting "Personal Contact" in the Contact Interface, press the "OK" key to enter the Personal Contact Interface, as shown in the figure. Press the "Up & Down" key to select it, press "PTT" key to talk with him. The interface when sending communication and the corresponding receiving device interface are as shown in the figure below, "p1" is the number of the current sending communication device.



Group Contact Interface

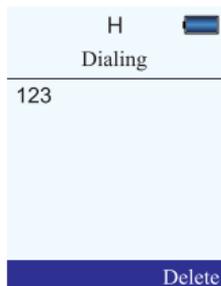
After selecting "Group Contact" in the Contact Interface, press the "OK" key to enter the Group Contact Interface, as shown in the figure. Press the "Up & Down" key to select it, press "PTT" key to talk with them. The interface when sending communication and the corresponding receiving device interface are as shown in the figure below, "g1" is the group of the current sending communication device, and "p1" is the number of the current sending communication device.





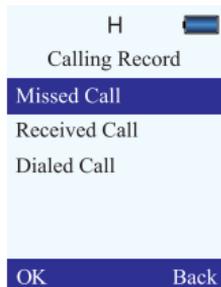
Dialing Interface

After selecting "Dialing" in the Contact Interface, press the "OK" key to enter the Dialing Interface, as shown in the figure. After entering the number of a contact, press the "PTT" key to talk with him.



Calling Record Interface

After selecting "Calling Record" in the Contact Interface, press the "OK" key to enter the Calling Record Interface, as shown in the figure. Press the "Up & Down" key to select it, press the "OK" key to view.



Troubleshooting guide

Fault description: unable to boot

- ▶ Cause Analysis 1: the battery may not be properly installed.
Solution 1: remove the battery and reinstall it.
- ▶ Cause Analysis 2: the battery may be exhausted.
Solution 2: charge or replace the battery.
- ▶ Cause Analysis 3: bad contact due to dirty or damaged battery contacts.
Solution 3: clean the battery contacts; if the problem cannot be solved, please contact your dealer or our designated service point for maintenance.

Fault description: when receiving a signal, the sound is too small, intermittent or silent.

- ▶ Cause Analysis 1: the volume is low.
Solution 1: turn up the volume via the "Volume Knob".
- ▶ Cause analysis 2: the speaker is clogged or damaged.
Solution 2: conduct simple external cleaning; if the problem cannot be solved, please contact the dealer or our designated service point for maintenance.

Fault description: cannot talk to members in the group

- ▶ Cause analysis 1: the communication signal is weak.
Solution1: make sure that the member of the call is within the valid communication range.
- ▶ Cause analysis 2: you and the member of the call are not on the same channel.
Solution 2: change the channel via "Channel Setting".
- ▶ Cause analysis 3: your encryption code is inconsistent with the encryption code of the member you are talking to.
Solution 3: change the encryption code via the "Write Frequency Software".

Fault description: the voice is not clear

- ▶ Cause analysis 1: the communication signal is weak.
Solution1: make sure that the member of the call is within the valid communication range.

Fault description: the noise is loud

▶ Cause analysis 1: the communication signal is weak.

Solution 1: make sure that the member of the call is within the valid communication range.

▶ Cause analysis 2: the location is not good, such as being blocked by tall buildings, or being located in a basement.

Solution 2: move to an open and flat place, try again at power on.

▶ Cause analysis 3: it is affected by external environment or electromagnetic interference.

Solution 3: keep away from devices that may cause interference.

If your problem cannot be solved by the above methods, or there are any other faults, please contact your dealer or our company for further technical support.

Quality Assurance and Maintenance Clause

Product Warranty Coverage

Device host and accessories.

Warranty Details

1. From the date of purchase, the host will be guaranteed for one year free of charge in the case of non-human damage, and standard accessories such as batteries, charging docks and power adapters will be guaranteed for six months.
2. Users completed warranty card or a valid purchase invoices, receipts identified as the original warranty, invoice or receipt should indicate the main parts, factory serial number, date of sale and purchase amount.
3. Equipment problems caused by non-human causes can be returned, exchanged or repaired within 7 days, exchanged or repaired within 15 days, and free repairs.
4. Our company provides customers with lifetime maintenance services. For products beyond the warranty period, our company can continue to provide customers with repair and maintenance services, but will charge reasonable labor and material fees as appropriate. within the warranty period beyond 15 days.

Cases Not Covered By Warranty

1. Malfunctions and damages caused by damage caused by human factors, use in an extraordinary working environment, and use that do not follow the instructions.
2. Failure or damage caused by users disassembling, repairing, or refitting without the consent of the company.
3. Damage caused by force majeure (such as flood, lightning, tsunami, fire, high voltage, etc.).
4. It is not possible to present a valid warranty certificate (warranty card, invoice or receipt, etc.).
5. The barcode and tamper-evident label of the machine are damaged or unrecognizable.
6. Normal use, wear and tear, etc.
7. Batteries with the following conditions are not covered by the warranty: 1) The battery surface has punctures, cracks and other man-made damage; 2) The battery is damaged by the use of non-ad hoc network walkie-talkies (such as the use of non-specified seats). Charging, etc.).

Disclaimer

This user manual strives for the accuracy and completeness of the content description during the compilation process, but our company does not assume any responsibility for possible errors or omissions. Due to the continuous development of technology and products, our company reserves the right to change product design and specifications without notice. Without the company's prior written authorization, this manual may not be copied, modified, translated or distributed in any form.

Product Warranty Card

Purchase Information	
Purchaser	
Telephone	
Address	
Date	

Device Information	
Model	
IMEI	

Note:

This warranty card is only applicable to the three-guarantee service of the host and accessories with the serial numbers listed above.

Please take good care of this warranty card, and please show this card and related invoices when enjoying the Three Guarantees service.

This card needs to be stamped by the sales unit to be effective. Man-made damage is not covered by the warranty. Please refer to the “Service Policy” for the specific warranty scope.

