

Mini Repeater

USER'S MANUAL

To users:

- Welcome to choose our company repeater. We will provide you with the reliable, clearly, efficient communication service. In order to let you learn more functions, usage and maintenance method about this repeater, please read this manual carefully before you use the product.
- Please keep the manual, in order to offer reference or use of this product
 - In order to safeguard the legitimate rights and interests of you from infringement, please seriously truthfully fill in when buying the company's products (with repair service card), and ask for the purchase vouchers of real and effective.
 - This product relates to upgrade or improve, the company reserves without prior notice to change this manual at any time above the rights of software and hardware specifications
 - All specifications mentioned are only for reference.
 - Although all words are carefully check, it is hard to avoid errors, the company reserves the final explanation.

Safety Information to Users

- For your efficient and safe use of this repeater, please read the following information carefully.
- This repeater input power is DC12V~24V.
 - The maintenance of this repeater can be only operated by Professional technician, Self-disassembly is not allowed.
 - To avoid EMC interference or EMC compliance problem, please do not install and use this repeater on the places where are sticking the labels "Please Turn Off the Radio".
 - When in the car with airbags, do not install the repeater in the area where the airbags may be functioning.
 - When approaching the blasting area and the detonator area, please turn off the repeater first.
 - You are forbidden to operate this repeater in flammable and explosive environments.

- Please do not place this repeater at a wet, rainy or overabundance of dust areas.
- Please do not expose this repeater to direct sunlight for a long time or near the heating devices.
- When install the repeater antenna outdoor, the lightning arrester must be install Firstly then connected to the antenna, and the chassis must be reliably grounded to prevent lightning.

Unpacking and Checking Equipment

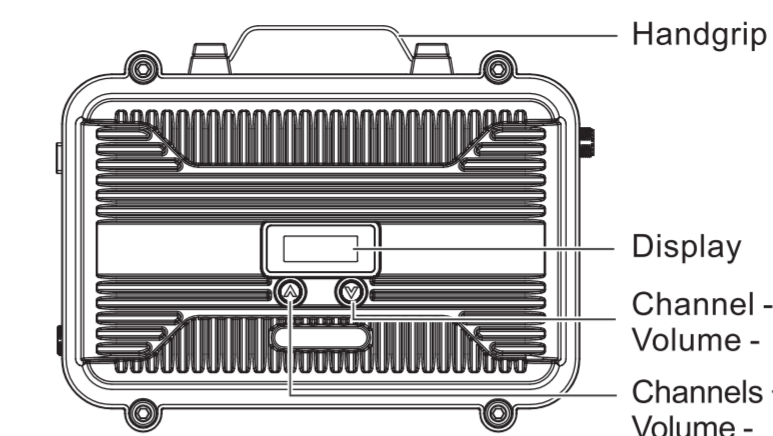
- Welcome to use this repeater, before using we suggest you
- Please check the packing box of this product and see if there any sign of damage.
 - Please open the packing box carefully, we recommend that you identify the items listed in the following packing list. If you find that our product and its accessories in handling are lost or damaged during the shipment, please contact dealers immediately.

Supplied Accessories

Item	Quantity
Repeater	1
Charger	1
Power Supply	1
Car Charger Cable	1
Programming Cable	1
User's Manual	1



Get Familiar with the Repeater



Note:

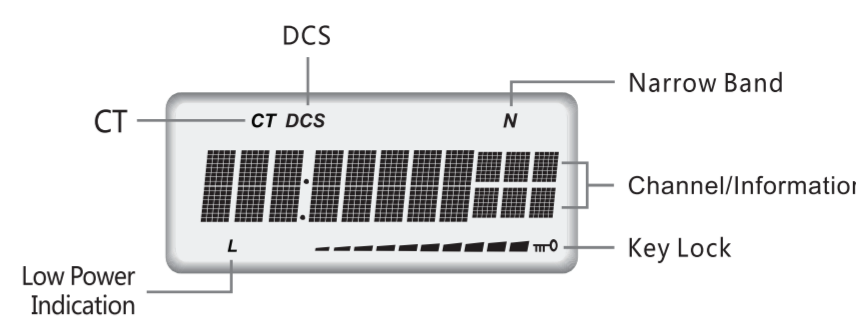
- Short press to increase Volume
- Long Press to increase Channel
- Short press to decrease Volume
- Long Press to decrease Channel

Short press at the same time View the current channel CTCSS/DCS

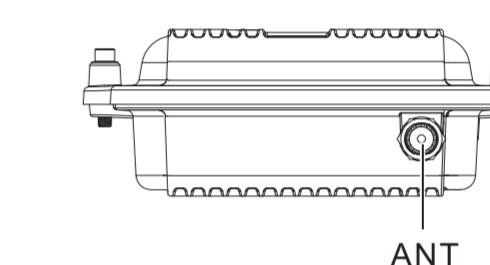
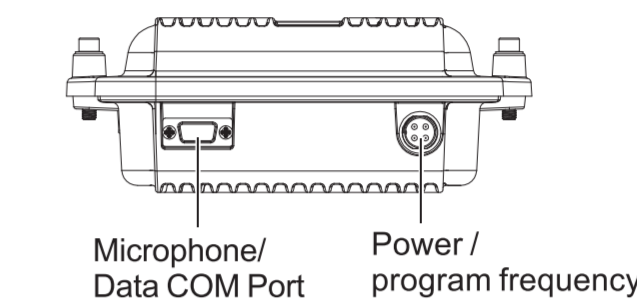
Long press at the same time to lock/unlock the keypad (About 3 second)

LCD Screen

On the screen, you can see different icons which represent the selected functions. Sometimes you may not remember the settings on handheld transceiver, and at this time, you will find the below chart will be much helpful.



Note: Repeater Indication



Basic Operation

- Turn on/off the repeater**
To turn on the repeater, connect the adapter to the power supply, the screen will display purple; To turn off the repeater, disconnect the adapter from the power supply.
- Select Channel**
This repeater can be programmed 16 channels, press + or - to change the channel number.
- Select Volume**
This repeater can set the volume of the microphone, press + or - to change the Volume.
- Transmit and Receive:**
Repeater's TX frequency and RX frequency are different, repeater will TX the signal which they RX in current channel, and repeater will gain the weak signal to high signal, so that enlarge the communication range.

Technical Parameters

Specifications	
Frequency Range	136-174/400-470MHz
Channel Capacity	16CH
Channel Spacing	±12.5KHz Narrow/±25kHz Wide
Operating Voltage	DC12V ~24V
Operating Temperature	-30°C ~ +60°C
Frequency Stability	±2.5ppm
Antenna Impedance	50Ω

Transmitter

Intermediate Frequency	160MHz / 465MHz
Power Output	10W
Modulation	F3E
Spurious Emission	-60dB or less
Maximum Frequency Deviation	Wide: ±5kHz Narrow: ±2.5kHz
FM Noise	Wide: ≤45dB Narrow: ≤40dB

Receiver

Intermediate Frequency	150MHz / 455MHz
Sensitivity(12dB SINAD)	0.2μV (Wide) 0.25μV (Narrow)
Squelch Sensitivity	0.15μV (Wide) 0.2μV (Narrow)
Adjacent Channel Selectivity	≥ 70dB (Wide) / ≥ 65dB (Narrow)
Intermodulation	≥ 55dB
Spurious Rejection	≥ 55dB
Image Rejection	≥ 55dB
FM Ham and Noise	≤ -45dB(Wide) / ≤ -40dB(Narrow)
Modulation Type	F3E
Operating Bandwidth	≤ ± 7KHz / ≤ ± 5KHz
Audio Distortion	≤ 5%

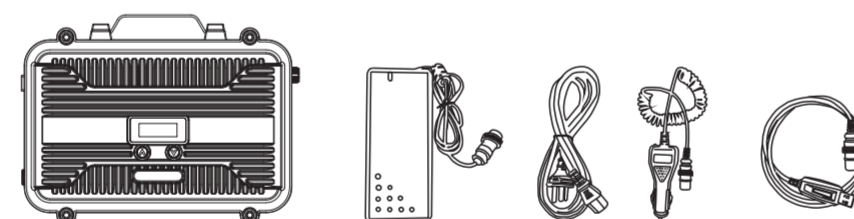
Troubleshooting Guide

Common Problem	Solution
LCD no display Repeater can not be power-on	Checking the power cord and adapter
The repeater can not receive intercom signal	1. The connector of RF cable is loosed 2. Antenna or cable is damaged 3. Talking range is exceed repeater effect range
Front part of the speech is not been relayed	Enter PTT in 0.5s then begin speaking. Delay speech to allow the system delay: System delay owing to: 1. CTCSS/DCSS decode 2. Requirements for signaling systems
User can not received the signal from Repeater send out	1. The connector of RF cable is loosed 2. Antenna or cable is damaged 3. Talking range is exceed repeater effect range

Initial installation

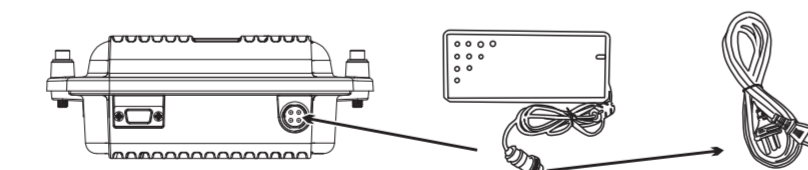
Installation of the repeater
When installing this repeater, please choose a safe, convenient and well-ventilated location that avoids direct sunlight

- Unpack and take out the repeater and accessories.



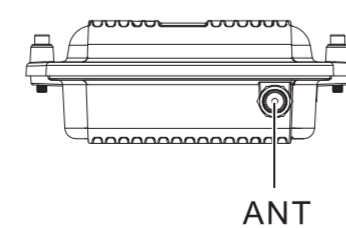
1.2 Power cable connection

Insert the end of the four-hole socket of the power cable in the accessory into the four-pin plug on the side of the relay, and press it tightly. Tighten the screws and connect the other end to the power adapter.



1.3 Antenna connection

First, install a highly and precisely tuned antenna. The success of the installation depends on the type of antenna and the correct installation process. If the antenna system is selected and installed carefully, the repeater will achieve perfect operation results.



Guarantee

Model Number:	
Serial Number:	
Purchasing Date:	
Dealer:	
Telephone:	
User's Name:	
Telephone:	
Country:	
Address:	
Post Code:	
Email:	

Remarks:

- This guarantee card should be kept by the user, no replacement if lost.
- Most new products carry a two-year manufacturer's warranty from the date of purchase.
- The user can get warranty and after-sales service as below:
 - Contact the seller where you buy.
 - Products Repaired by Our Local Repair Center.
- For warranty service, you will need to provide a receipt proof of purchase from the actual seller for verification.

Exclusions from Warranty Coverage:

- To any product damaged by accident.
- In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.
- If the serial number has been altered, defaced, or removed.