



RECYCLABLE PACKAGING

USER'S MANUAL

Two Way Radio

DMR Digital Transceiver

Content

Main Functions and Features	01
Unpacking and Checking Equipment	02
Charging The Battery	03
Battery Information	04
Install and Remove Accessories	06
Getting Started	08
Basic Operations	11
Function Specification	13
LED indicator	13
PTT Key	13
Receive and Transmit Call	13
Encryption Function	17
Setting	17
Troubleshooting	18

SPECIFICATION

Frequency Range	UHF: 400-480/450-520 VHF:136-174MHz
Channel Number	32 channels
Channel Spacing	Wide band: 25Khz Narrow band: 12.5Khz
Antenna Impedance	50Ω
Operating Temperature	-20℃+60℃
Operating Voltage	DC7.4V
Dimension(Excluding antenna)	116×54×35mm

TRANSMITTER

Modulation	≤-45dB
Spurious and Harmonics	-65dB
Free Time Slot Power	≤-57dB
Audio Distortion	≤5%
Modulation BER(Bit Error Rate)	≤3%

RECEIVER

Sensitivity	≤-123dBm@25K
Adjacent Channel Selectivity	≤-65dB
Inter-modulation	≤-55dB
Block	≤-84dB
Spurious Response	≤-70dB
S/N	45dB
Audio Output Power	750mW
Audio Distortion	≤5%

Main Functions and Features

- ◆ High / Low Power Adjustable
- ◆ English /Chinese Voice Prompts
- ◆ Monitor
- ◆ 32 channels
- ◆ Power Save/Low Power Alarm
- ◆ Squelch Level 1-10
- ◆ Sound Tail Elimination
- ◆ Programmable Side Keys
- ◆ TOT
- ◆ Encryption
- ◆ Talk Around
- ◆ Wide / Narrow Bandwidth Selection

Unpacking and Checking Equipment

Welcome to use our transceiver, before use, we suggest you:

- Check the packing box whether it has been damaged.
- Please unpack the box carefully, and check if it includes all items that supplied below.If any item is found missing or damaged during shipment,please notify your Chierda dealer.

Supplied Accessories

Quantity	Commodity
	Transceiver
	Antenna
	Battery
	Battery Charger
	Belt Clip
	Hand Strap
	Service Card
	User Manual

Charging The Battery

Please use our company's official charger, and follow the steps below to charge the battery.

1. Connect the charger to the power supply socket.
2. Install the battery or the transceiver with battery, then the light turns red, indicating that the battery is being charged.
3. If the red light is off while the green light is on, this indicates that the battery is fully charged.
4. Unplug the charger from the power supply socket, and remove the battery.

Battery Information

The battery is not fully charged in the factory, please charge it before use.

charge the battery for the first time after purchase or extended storage (more than 2 months) may not bring the battery to its normal operating capacity. After repeating fully charge/distance cycle for two or three times, the operating capacity will reach the best performance.



Please do not continue charging when the battery is full-charged situation, otherwise it will shorten the life of the battery and reduce its performance.

Notice

1. The ambient temperature should be between 5°C and 40°C while charging. If beyond this temperature, the battery can not be fully charged. So please prepare spare battery as backup during cold weather. Do not throw away those batteries which can not be used at this time, they may be used in normal temperature.
2. When the battery contacts are dirty or stained, this will affect the normal use of the battery charging. Please wipe clean and then start charging.
3. Before charging, turn off the radio, or it will affect the normal charging.
4. When the battery or radio is wet, do not charge the battery. Please dry it before use.
5. After the battery has been properly charged, if the battery capacity still can not return to normal capacity, that means the battery life is over, please replace it.

Battery Type

Please charge the battery with our company official battery. Use other battery types may cause explosion and injure people.

Safety Precautions

1. Do not throw batteries into fire.
2. Do not attempt to disassemble the battery pack housing.

Battery storage

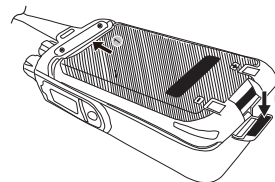
1. Battery has the phenomenon of self-discharge, therefore, if the battery is not in use for a long time, please be fully charged first before storage, this is to void battery damage due to excessive self-discharge.
2. After a period of storage, battery needs to be charger, In order to avoid excessive battery from the battery capacity is reduced. Battery storage is recommended after 6 months battery charge.
3. Please note that the temperature and humidity of store battery. Keep the battery in a cool, dry conditions room to avoid battery self-discharge

Install and Remove Accessories

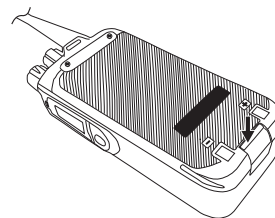
Install/Remove Battery Pack

Note:

- Do not short circuit battery pack terminals or throw battery pack into fire.
- Do not try to remove the battery pack shell.
- Do not install battery pack under dangerous conditions, otherwise spark will cause explosion.



Insert the top part of the battery pack into the top 2 slots of the transceiver and then button the bottom's buckle .



To remove the battery pack, make sure the transceiver has been turned off, and then open the bottom's buckle, Remove the battery when the batter pops up.

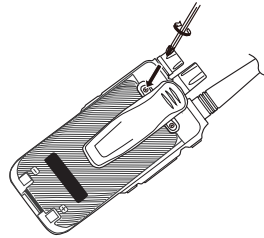
Install Antenna

Hold the base of antenna, rotate it tightly into the connector of the top of transceiver clockwise.

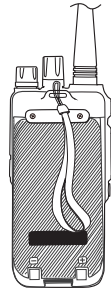


Install/Remove Belt Clip

If necessary, install the supplied screws into the belt clip at the back of battery pack for easy carry.



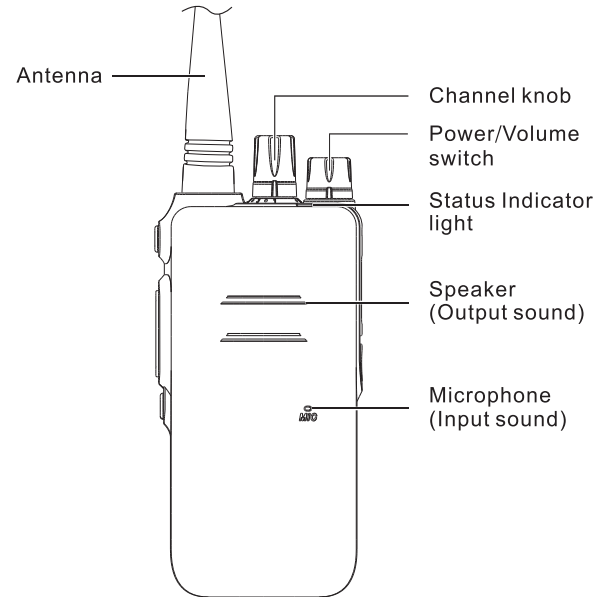
To remove the belt clip, directly remove the two screws only.

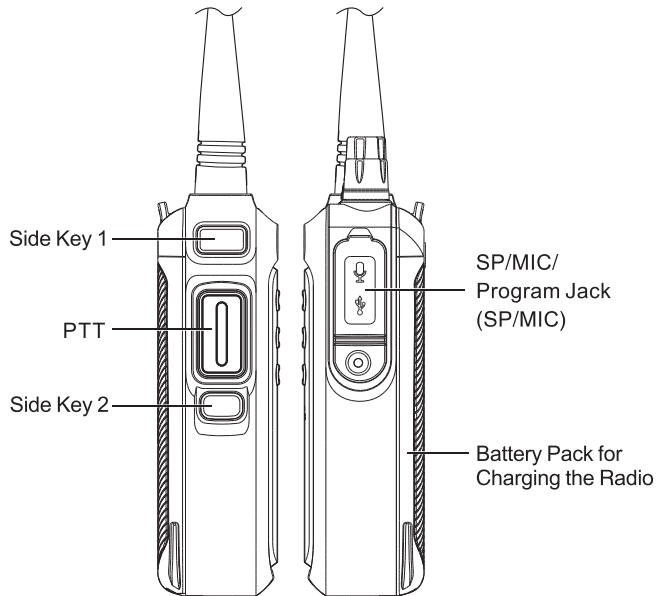


Install Hand Strap

Install the hand strap at the middle circle of the transceiver.

Getting Started





Remark: Different functions of Side Key 1, Side Key 2, which are used by the long press or a short press, can be defined by programming software.

The following functions can be defined:

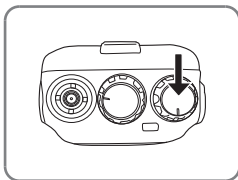
Side Key:

1. None
2. Monitor(Analog)
3. Permanent Monitor(Analog)
4. Zone Selection
5. High / Low power Selection
6. Repeater / Talk Around
7. Electricity Inquiry

Basic Operations

POWER ON and POWER OFF:

Rotate the knob clockwise until a “click” is heard, transceiver will have a short beep sound, indicating power on detecting success.



Attention:

If your transceiver is not power on, please check the battery, and confirm if the battery has been charged and installed correctly. If it still can not be turned on, please contact with the agent.

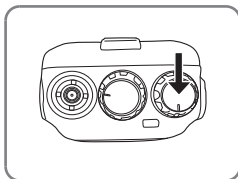
To turn off the transceiver, please rotate the power knob / Volume knob anticlockwise until a “click” is heard, then transceiver is power off.

Adjust Volume

When the transceiver is power on, rotate the power switch / Volume knob to adjust the volume. Clockwise rotation to increase the volume;

Anticlockwise rotation to decrease the volume.

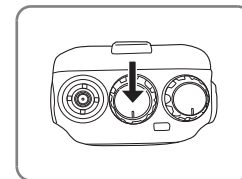
You can press the side key which is programmed MONITOR function to monitor the current volume



Attention: MONITOR key can be set to P1 or P2 Key according to the programming software.

Channel Selection:

Rotation the channel knob to select the desired channel. This transceiver has 32 channels.

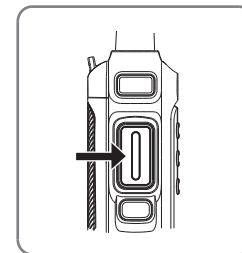


Attention:

There are two zones in this transceiver, each zone has 16 channels, Zone 1 and Zone 2 can be selected by pre-programmed key.

Transmit

When going to transmit, press PTT key, keep microphone away from your mouth about 3-4cm, and speak in your usual tone.



Receiving

Release the PTT key to receive. Adjust the suitable volume to get the best receiving result.

Function Specification

LED indicator

LED indicator shows transceiver's working status.

Red light indicates the transceiver is transmitting.

Green light indicates the transceiver is on process of power on or is receiving non-encrypted signal or data, or is detecting air activity.

Call (PTT) key

Each channel in this transceiver can be set into a digital channel.

When in transmitting, press PTT key continuous will transmit signals to other transceivers continuously.

Press PTT to transmit and release PTT to receive. The microphone will be activated by pressing PTT

Receive and Transmit Call

Zone Selection

The zone is a group of channels. The transceiver supports at most two zones, and each zone is not more than 16 channels

1. Press the key pre-programmed.
2. You will hear a "confirmed" tone, this is to confirm that Zone 1 has been changed to Zone 2 in this transceiver. Or you will hear a negative tone, means Zone 2 has been returned to Zone 1 in this transceiver.

After selecting the intercom channel, talk group ID or user ID required Zone setting (If there are multiple Zones in the intercom). Rotary channel selector buttons to select the representative channel, talk group ID or user ID number.

Receive and Reply Call

You can received or reply call after finished channel / user ID or group ID's setting. When transmit transceiver, LED indicator turns red. When receiving message, the LED indicator turns green.

Receive and Reply Group Call

To receive a call from a user's group, the transceiver must be configured as belonging to that group.

1. LED indicator turns green.
2. Hold the transceiver vertically and keep about 1~2 inches (2.5-5.0cm) away from mouth.
3. Press PTT key to respond the call, LED indicator turns red.
4. Release PTT key to receive.

Receive and reply Individual Call

Individual Call is one to one calling including two types: 1) Carry on Transceiver existence detection before calling; 2) Ready to call immediately.

When your transceiver has been chosen, LED indicator turns green. You can only select one type to set in to the transceiver.

When Receiving a Individual Call:

1. LED indicator turns green.
2. Hold the transceiver vertically and keep about 1~2inches(2.5-5.0cm) away from mouth.
3. Press PTT key to respond to the call, LED indicator turns red.
4. Release PTT key to receive.

Receive All Call

All Call is a call from an individual transceiver calls all transceivers in the same channel. It is used to announce something important that users must pay special attention to. When received all call, LED indicator turns green.

Notice: when receiving all call, if you turn to another channel, the transceiver stop to receive all call. During the all call, you can use any re-programmed key until the call finished.

Launch a Transceiver Call

You can choose a channel, user ID or group call with following methods.

- Channel Knob

Launch a Group Call

To launch a group call, the transceiver must be configured as belonging to that group.

1. Rotate channel knob, using activated group ID to select channel.
2. Hold the transceiver vertically and keep about

1~2inches(2.5-5.0cm) away from mouth.

3. Press PTT key to respond the call, LED indicator turns red.
4. Release PTT key to receive, when the target transceiver responds, LED indicator turns green.

Launch a Individual Call

1. Rotate channel knob, using activated group ID to select channel.
2. Hold the transceiver vertically and keep about 1~2inches(2.5-5.0cm) away from mouth.
3. Press PTT key to respond the call, LED indicator turns red.
4. Release PTT key to receive, when the target transceiver responds, LED indicator turns green.

Launch All Call

This functions allows you to transmit to all users in same channel. The transceiver must be programmed with this function, so that you can send information to every user who are under the channel.

1. Rotate channel knob, using activated all call group ID to select channel.
2. Hold the transceiver vertically and keep about 1~2inches(2.5-5.0cm) away from mouth.
3. Press PTT key to respond the call, LED indicator turns red.

Encryption Function

Encryption Setting (This function is effective for digital mode only)

According to the programming software setting, there are 10 groups at most to preset group encryption or encryption key (10 Byte) With pre-programmed key to start up / shut down encryption function.

Setting

Setting Squelch level

You can adjust the transceiver squelch level, filter low signal strength (unwanted calls) or the the channel of background noise is higher than the channel common values.

Set: 1-10 levels, the higher the level, the deeper the squelch, squelch deep filtration (unwanted) calls or background noise. However, a call from a remote location may be also filtered out.

Setting Power Level

You can set each channel power in High / Low level.

Setting: Set high power to communicate with transceivers in far area. Set low power to communicate with transceivers in near area.

Press pre-programmed "High / Low power" selection key.

Troubleshooting

Symptom	Try This
No Power	<ul style="list-style-type: none">● Battery power may have run out, please update battery or recharge it.● Battery may not be properly installed, please take it off and re-install.
Battery lasts a short time after charge	<ul style="list-style-type: none">● The battery life is over, please replace new battery.
Can not talk to other members of your group	<ul style="list-style-type: none">● Verify transmitting is within effective operating range.● Verity channels, frequency and code setting are correct.
Hearing other conversation on a channel (not group members*)	<ul style="list-style-type: none">● Please change code settings. Including all two way radio settings of your group.
Transceiver continues to tweet	<ul style="list-style-type: none">● The transceiver channel is empty, please turn on another channel or use it after writing frequency by program software.

GUARANTEE CARD

Model Number: _____

Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's Name: _____ Telephone: _____

Address: _____ Post Code: _____

REMARKS:

1. This guarantee card to be kept by the user, no replenishment if lost.
2. This guarantee card to be filled & chopped by the dealer, or it is invalid.
3. Don't alter the guarantee card, please confirm the serial number on the guarantee card is same as that on the machine.
4. One-year guarantee, charger, battery, earphone, antenna and can cable are not under guarantee.
5. The user can get repairing service from the following ways:
 - a. Go to the shop where you buy the transceiver
 - b. Our local repairing agent

Please cut along with this line