



Made in China

**HONGKONG RETEVIS TRADE CO., LIMITED**

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# Retevis

PORTABLE TWO-WAY RADIO

## RT7

Ultra-long Haul Long Standby



### User's Manual



## **THANK YOU**

We are grateful for your choice of our transceiver. We believe that this easy-to-use transceiver will provide dependable and cost-effective communications for you. Our professional two-way radios incorporate the latest in advanced technology and craft. So you will be pleased with the quality and features of our products. Please read this manual carefully to ensure you know how to properly operate the radio before use.

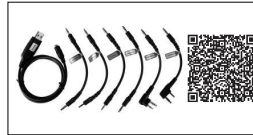
## PRECAUTIONS

1. Refer service to qualified technicians only.
2. Do not disassemble or modify the transceiver for any reason.
3. Do not expose the transceiver under direct sunlight long time or to extremely hot condition.
4. Do not place the transceiver on the unstable surface.
5. Keep the transceiver out of dust, moisture, and water.
6. Do not operate the transceiver or charge the battery pack under explosive conditions.

## CONTENT

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## MORE OPTIONAL ACCESSORIES OF RETEVIES



6 in 1 programming cable kit



Acoustic tube headset



Antenna



Programming cable



Speaker microphone



Throat mic

NOTE: For more information, Please visit our website: [www.retevis.com](http://www.retevis.com)

## UNPACKING AND CHECKING EQUIPMENTS

Carefully unpack the transceiver. We recommend that you identify the items listed in the following before discarding the packing material. If any items are missing or have been damaged during shipment, please contact your dealers immediately.

| ITEM             | QUANTITY |
|------------------|----------|
| Transceiver Unit | 1        |
| Antenna          | 1        |
| Handstrap        | 1        |
| Charger          | 1        |
| Battery          | 1        |
| Beltclip         | 1        |
| USER'S MANUAL    | 1        |



Transceiver Unit



Antenna



Handstrap



Charger



Battery



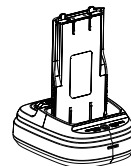
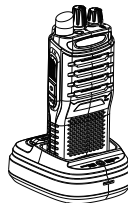
Beltclip

## CHARGING THE LI-ION BATTERY PACK

Please charge the new battery pack before using it. The new or stored (more than two months) battery pack, which can not reach its full capacity for the first charging. After 2 or 3 times charging and discharging, it can reach full charge.

### JUST SEE THE FOLLOWING INSTRUCTIONS

1. Plug the adapter into an electric socket.
2. Insert the transceiver or battery into the drop-in charging tray.
3. Ensure that the battery's contacts connect with the drop-in charging tray properly, while the charging is taking place, the light will glow red.
4. After 3 hours charging, the LED indicator will light green which means the full charge. Now remove the battery or the transceiver from the drop-in charging tray.

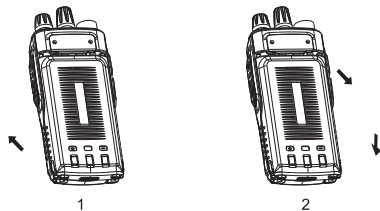


### Note:

Do not recharge the battery pack if it is fully charged. Doing so may cause the life of the battery pack to shorten or the battery pack may be damaged.

## INSTALLING/REMOVING THE BATTERY PACK

The usage time of JL-11 Battery Pack is about 8 hours, which is based upon 5% transmit/5% receive/90% standby (standard duty cycle). See



### CAUTION:

1. Do not short-circuit the terminals of the battery or throw the battery into the fire.
2. Do not disassemble the battery pack yourself.

## INSTALLATION OF ACCESSORIES

### INSTALLING THE ANTENNA

Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

#### Note:

The antenna is neither a handle, a key ring retainer, nor a speaker, microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.

### INSTALLING THE BELT CLIP

If the belt clip is not installed, its mounting location may get hot during continuous transmission or under heated environment.

#### Note:

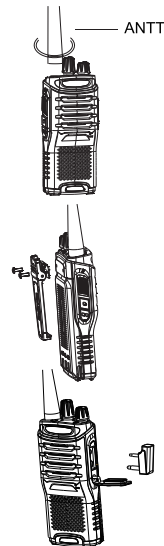
If the belt clip is not installed, its mounting location may get hot during continuous transmission or under heated environment.

### MICRO-HEADSET INSTALLATION OF EXTERNAL

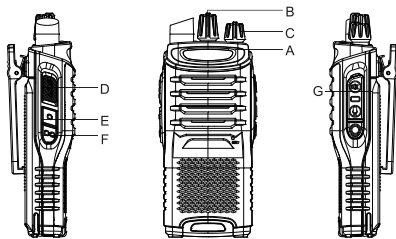
Insert the speaker/microphone plugs into the speaker/microphone jacks of the transceiver.

#### Note:

The transceiver is not fully water resistant when using speaker/microphone.



## GETTING AC QUANTED



**A.Led Indicator**— The LED indicator lights continuously red when transmitting. And lights green when in reception condition.

**B.Channel Switch**—Rotate it to select the channel. No.16 channel is scanning channel.

**C.POWER SWITCH/VOLUME CONTROL**

Turn clockwise to switch ON the transceiver.

Turn counterclockwise fully to switch OFF the transceiver. Rotate to adjust the volume.

**D.PTT (PUSH-TO-TALK) BUTTON / FM RADIO**

Press this button, then speak into the microphone to call a station.

Release to receive a call.

**E.MONITOR BUTTON**

Press and hold (Squelch OFF) to hear the background noise;Release to return to normal operation.

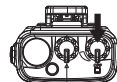
**F. FUNCTION KEY**—Just press to activate the torch function.

**G.SPEAKER/MICROPHONE JACKS**

## OPERATION

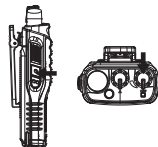
### SWITCHING POWER ON/OFF

Turn the power switch/volume control clockwise. You will hear a beep and speech, indicating the transceiver is ON.



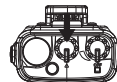
### ADJUSTING THE VOLUME

Hold Monitor button down to listen to audio level while rotating the Power switch/Volume control. Rotate clockwise to increase and counterclockwise to decrease volume.



### SELECTING THE CHANNEL

Turn the channel switch to select your desired channel. NO.16 is Scanning Channel.



### TRANSMITTING

To transmit, press and hold [PTT] and speak into the microphone in your normal tone of voice.

The LED indicator lights continuously red when transmitting.

To maximize sound clarity at the receiving station, hold the transceiver 2 to 3 inches from mouth and talk in normal tone of voice.



## ADDITIONAL FUNCTIONS

### SQUELCH LEVEL

The purpose of Squelch is to mute the speaker when no signals are present (Squelch OFF). With the squelch level correctly set, you will hear sound only while actually receiving signals (Squelch ON). The squelch level can be adjusted via program software.

### TIME-OUT TIMER (TOT)

The purpose of the Time-out Timer is to prevent any caller from using a channel for an extended period of time which will cause thermal damage. The built-in Time-out Timer limits each transmission time to a certain time. The transmission time extends the certain time you set, an alert tone will sound.

### SCAN

Scan is a useful function for hands-off monitoring of your favorite frequencies. When transceiver is set as SCAN via software, turn the channel selector to channel 16, the transceiver will automatically detect the activities of scanning channel from 1 to 15 (Different channel can be set) .

- 1.The transceiver stops scanning at the frequency (or memory channel) where a signal is detected. It then continues or stops scanning.
- 2.If there are less than 2 channels, it can not scan.
- 3.On channel 16, press PTT and MONI key, it will turn on the SCAN,or turn off the SCAN.
- 4.If the FM radio function is activated, it can not scan.

### VOICE PROMPT

- 1.Voice Prompt ON/OFF can be set via software.
- 2.On channel 10, press PTT and MONI key, then switch on the transceiver, Voice Prompt can be cancelled or activated.
- 3.On channel 15, press PTT and MONI key, then switch on the transceiver to choose different voice prompt languages.

### VOX(Voice Operated Transmission)

VOX eliminates the necessity of manually switching to the transmission Mode each time you want to transmit. The transceiver automatically switches to Transmission Mode when the VOX circuitry senses that you have begun speaking into the microphone. When you operate the VOX function, you must use an optional headset with microphone.

1. When operating the VOX function, be sure to set the VOX Gain level which allows the transceiver to recognize the sound levels.
2. If the microphone is too sensitive, the transceiver will begin transmitting when there is noise in the background.
3. If it is not sensitive enough, it will not pick up your voice when you begin speaking. Be sure to adjust the VOX Gain level to an appropriate sensitivity to allow smooth transmission. On channel 1-5, press and hold the MONI and PTT, then switch on the transceiver, thus to activate the VOX functions ON/OFF.

### Battery Saver

The battery saver function will decrease the amount of power used when a signal is not being received and no operations are being performed (no keys are being pressed, and no switches are being turned). While the channel is not busy and no operation is performed for more than 10 seconds, Battery Saver turns ON. When a signal is received or an operation is performed, Battery Saver turns OFF.

### BATTERY LOW ALERT

Battery Low Alert reminds you of recharging. When the battery power is very low, an alert tone will sound and the LED indicator will blink red. Please recharge or replace the battery pack.

**MONITOR**

When you are receiving and no signals present, the squelch function can mute the speaker, so you can not hear the background noise. If you want to switch the squelch function OFF, press and hold [MONI] button. It is very helpful when you want to adjust the volume level and receive the weak signals.

**BUSY CHANNEL LOCK-OUT (BCL)**

Busy Channel Lock-out function can be turned ON/OFF with program software on every channel. When activated, BCL prevents you from interfering with other parties who may be using the same channel that you selected. Pressing the PTT switch while the channel is in use will cause your transceiver to emit an alert tone and transmission will be inhibited (you cannot transmit). Release the PTT switch to stop the tone and return to receive mode.

**CTCSS/DCS**

CTCSS (Continuous Tone Coded Squelch System)/ (Digital Coded Squelch)  
You may sometimes want to hear calls from only specific persons or groups. In this case, use the selective call which allows You to ignore unwanted calls from other persons who are using the same frequency. CTCSS or DCS is a sub-audible tone and is selectable from among the 39 or 83 tone frequency listed.

**NOTE:**

CTCSS and DCS do not cause your conversation to be private and scrambled. It only relieves you from listening to unwanted conversations.

**SPECIFICATION**

|                  |                 |
|------------------|-----------------|
| Frequency Range  | 400-470MHz      |
| Channel Capacity | 16              |
| Dimensions       | 133mmx57mmx31mm |
| Weight           | 170g            |

**NOTE:** All specifications are subject to change without notice.

**TROUBLESHOOTING GUIDE**

| TROUBLES   | GUIDE   |
|--|---|
| No Power   | Check battery installation and/or replace batteries. Voltage Capacity Quickly Go Out. The battery life is over, replace new one.  |
| Couldn't I communicate with other group members.   | First, please verify that the channel frequency and the CTCSS you are using are the same as those of your group members. If the channel frequency and the CTCSS are the same, please verify that your group members are within the radio coverage |
| Hear the voice from other groups.  | Please change your CTCSS for the channel. At the same time, you also need to the CTCSS for all the radios in your group. If you don't like this, you may apply another channel frequency.   |
| Why can I hear the voices clearly from other group, sometimes, my voice is intermittent. | Please check whether the MIC is blocked by something. If so, Please return the radio to your authorized dealer for maintenance. Sometimes, your frequency is same as the frequency of other groups.   |
| Can't turn on the radio and even it is turned on, it often shuts off automatically.      | Please check the battery contacts on the radio. If it is broken or twisted, please return the radio to your authorized dealer for maintenance   |



## DQT(83)Two Way Radio Computer Programming Operation Instruction

### Computer System Requirements

Operating system: W98,WME,WXP,WVT,W7,W8

Hard disk space: more than 50MB

The minimum memory:64M

### Preparation

1. Download Programming Driver and select the driver that match with your own system.
2. Install the Programming Driver (Or install it by running Software CD).
3. Download and install Programming Software (Or install it by running Software CD).
4. Connecting Personal Computer (PC) with the radio.
- 5.

Note: 1. Serial port programming cable can be programmed directly. No installation needed.  
2. Ensure the radio is full of power and is on.

### Start Programming

1. Run programming software and click Setup-communication port. Choose the correct port corresponding with your PC. Otherwise, the radio will fail connecting with PC.
2. Click Program-Read From Radio, to upload frequencies from radio to software. The process will take a few seconds. Then you will find all channel settings show up.
3. Select the certain channel you want to modify and click Edit-Channel Edit/Batch Channel Edit.
4. Click Function Setting enable to modify general settings of the radio.
5. Click Program-Write To Radio, when finishing programming.

### Relative Problem Solving

When no response while "reading or writing frequency" or connection error occur, you could:

- Check USB cable condition. Does it get damaged?
- Check USB cable or Serial port with PC/RADIO. Does it get damaged or loose?
- Check the radio power. If the power is low, please change a new battery or charge soon.
- Check if the radio is on when programming.
- Check if the software matches with the radio model.
- Check if you choose the correct driver that corresponds with your PC system.
- Check if you choose the correct communication port that corresponds with your PC.

**Communication failure between two radios after finishing programming, you could:**

- Confirm that two radios are in the same channel.
- Confirm that the CTCSS/CDS are same after programming two radios
- Confirm the radio volume is high enough.
- Confirm radios are all open and full of power.
- Confirm radios connected antenna well.
- Confirm the range between two radios. The maximum range would be 3km.

### FAQ

**Q: Why the radio can receive but couldn't transmit signal?**

- 1: Make sure the 2 radios are in the the same frequency and channel
- 2: Make sure CTCSS and DCS code are exactly same by programming the radio
- 3: Due to the lower battery. Please fully charged before use them
- 4: Press PTT and confirm if the indicator light is red,if not,there is a problem with the PTT

**Q: Why the radio can transmit but couldn't receive signal?**

1: Please double confirm if radios share the same frequency and CTCSS/DCS. If not please program the radio.

2: Turn up the voice to highest level

3: Due to the lower battery. Please fully charged before use them

**Q: Why the radio keep saying "Please change battery"?**

1: Might be a problem with the battery. Please change another battery to have a try

2: Might be a problem with the battery connector. Please check if the radio body and the battery connected tightly

3: If these solutions don't work, Please contact the seller for help

**Q: Why receiving a noisy sound?**

1: Might be signal interference. Please go outdoor and try again. Or please programming CTCSS and DCS with the same code

2: Squelch level is too low. Please raise the Squelch level by programming the radio

3: Forgot to install the antenna

4: Might be a problem with the radio speaker. Please use a earpiece and try again.

**Q: Can this radio work with radios of other brand?**

If their frequency is 400-470 MHz as well, please program all radios to the same frequency and same CTCSS/DCS code. They will communicate freely

**Q: Why the radio channel is noisy and fail focusing on a certain channel?**

1: Might be in an empty frequency. Please programming the radio

2: VOX function might be on. Please turn off this function

**Q: How to improve the radio range ?**

1: Choose the high power by programming radio

2: Apply a high gain antenna

3: Fully charged before use the radio

4: The communication range depends on the condition and terrain. Open area enjoys longer communication distance.

**Q: Do I need to program the radio before use it?**

If you want to, just contact the seller for free programming software. However, if there is no such a requirement. You can use it out of the box. Please make sure communicate in the same frequency, channel and CTCSS/DCS.



| WARRANTY CERTIFICATE  |                   |                                     |
|---|-------------------|-------------------------------------|
| <b>Brand:</b>   | <b>Model no.:</b> | <b>Serial no.:</b>                  |
| <b>Name of purchaser:</b>   |                   |                                     |
| <b>Address:</b>   |                   |                                     |
| <b>City:</b>  | <b>Zip code:</b>  | <b>Seal and name of the dealer:</b> |
| <b>Province/State:</b>  | <b>Tel no.:</b>   |                                     |
| <b>Date of purchase:</b>  |                   |                                     |
| <b>WARNING: Warranty is valid provided it is complete and properly filled in legibly and clearly present the seal and name of the dealer and have attached the bill proof of purchase of equipment.</b> |                   |                                     |

The device described in this Certificate is guaranteed for a period of one year from the date of sale to the final user. This Warranty Certificate is unique and not transferable and may not be reissued for new or original or copy. Substitution of product failure or any part thereof shall not involve extension of the guarantee.

The warranty covers the replacement and free replacement of all parts that are defective in materials and components used in manufacturing and / or assembly of the apparatus.

The warranty does not cover any faults caused by accident, improper installation and use, electric shock (eg storms), connect a power other than that specified, reverse polarity in the diet, or claims due to deterioration in the external appearance of normal use, nor the amount or condition of the accessories.

Checking the accessories is the responsibility of the purchaser at the time of purchasing the device.

The warranty does not cover rechargeable batteries even if they are part of the equipment purchased as they are considered consumables, the impairment must be reported within a period of fifteen days from the date of purchase.

The warranty is void on the following assumptions:

1. - Devices that have been manipulated by another or by anyone other than authorized service provider.
2. - Equipment and accessories in which the serial number has been altered, deleted or filed unreadable.
3. - Use of the product than as intended.

To make use of the guarantee is necessary to give the dealer or any of the Authorised Service the defective device with its accessories and the following documentation:

1. - Warranty Certificate duly completed and sealed.
2. - Original invoice which clearly identifies the device and the date of purchase.
3. - Description of the faults.

The warranty terms contained in this Certificate of Guarantee do not exclude, modify or restrict the statutory rights of the buyer by virtue of the laws in force at the time of purchase, but are added to them.