



**Digital Handheld Radio**

**RL-310D**

**User's  
Manual**

**REXON®**  
*What An Excellent Radio!*

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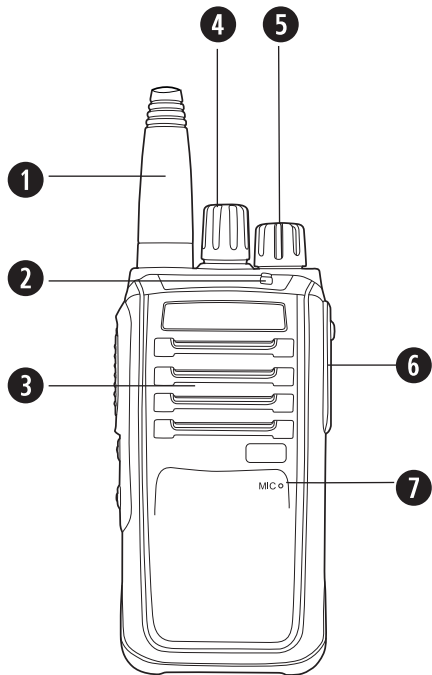
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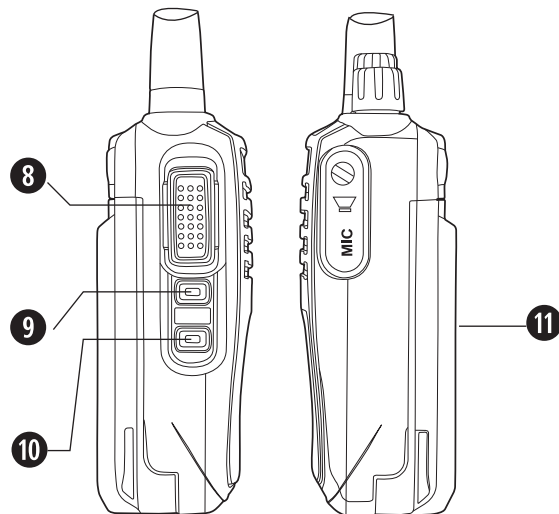
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# 1. Parts Name & Functions

## ■ Front View



## ■ Sided View



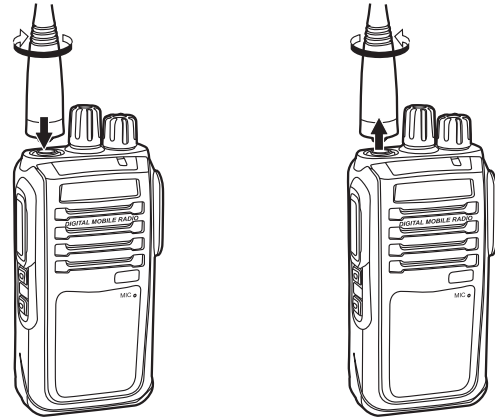
- (1) Antenna - The transceiver transmits or receives through the device to obtain maximum performance.
- (2) Status LED - Glows in different colors to show the current transceiver's status.
- (3) Loudspeaker - The reception sound is emitted by built-in speaker located in this area.
- (4) Dial Selector Knob - Rotate it to select previous or next channel/frequency/tag/parameters..etc.
- (5) Power/Volume Knob - Rotate it clockwise to power on/off or increase/decrease volume

- (6) External Speaker/Microphone Rubber - For external microphone and speaker or programming the transceiver, user has to take the rubber out.
- (7) Microphone - Your voice is detected by the microphone located in this place. °
- (8) PTT Button - Push to talk button, transceiver switches to transmit from receive when key is pressed.
- (9) Side Button (A KEY)- This button is programmable by programmer device.
- (10) Side Button (B KEY)- This button is programmable by programmer device.
- (11) Battery Pack - This Li-polymer battery pack supplies energy to the transceiver.

## 2. Attachment

### ■ Antenna

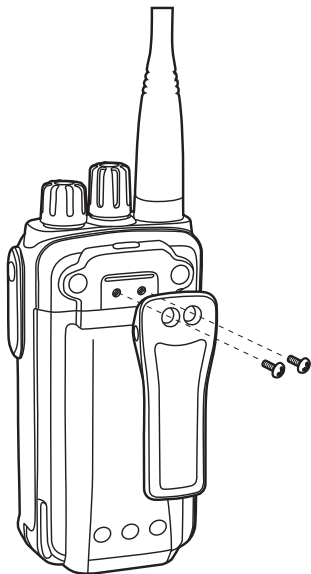
Insert the antenna we supplied into the antenna connector then rotate it clockwise to lock antenna.



**⚠ The transceiver may be damaged while transmitting without antenna.**

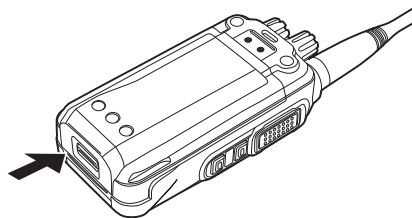
## ■ Belt Clip

Attach the belt clip with 2 pieces of screws by screwdriver.



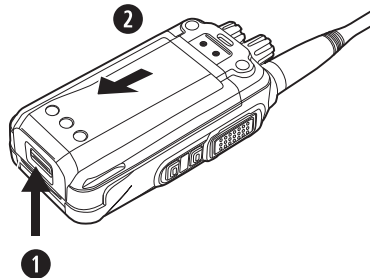
## ■ Replace The Battery Pack

Insert the battery back into chassis until hear the after kick sound.



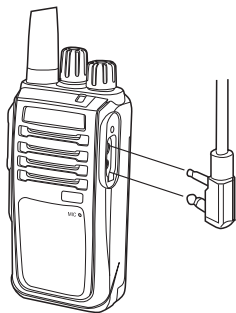
### Remove the battery pack

First turn off the radio and lift the lock button then pull the battery pack out.



## ■ Earphone/Speaker Microphone

Take the cover out and plug the earphone/Speaker microphone into the jack.

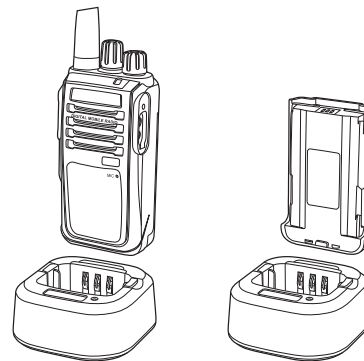


### 3. Charging The Battery

The battery pack is not charged at the factory; charge it before use. Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times, the operating capacity will increase to normal.

#### **CAUTION**

- A** DO NOT RECHARGE THE BATTERY PACK IF IT IS ALREADY FULLY CHARGED. DOING SO MAY CAUSE THE LIFE OF THE BATTERY PACK TO SHORTEN OR THE BATTERY PACK
- A** AFTER RECHARGING THE BATTERY PACK, DISCONNECT IT FROM THE CHARGER. CHARGING THE BATTERY PACK FOR MORE THAN 5 DAYS MAY REDUCE THE BATTERY PACK LIFE..



Plug the AC adaptor cable into the adaptor(jack located on the rear of the charger.)

Plug the AC adaptor into an AC outlet.

Slide the battery pack or transceiver with a battery pack into the charger.

- Make sure the battery pack contacts are in contact with the charging terminals.
- The charger LED lights and charging begins. After charging the supplied battery pack for 4 hours, remove it or the transceiver equipped with it from the charger.
- The charger turn to green automatically after charging is completed.

Unplug the AC adaptor from an AC outlet.

## 4. Basic Operation

### ■ Turn On/Off the transceiver

Switch ON the transceiver by turning the power switch / volume control knob clockwise until a beep sounds heard; To power off it, turning the knob counter-clockwise.

### ■ Volume Adjustment

Rotate the VOL knob clockwise to increase volume or counter-clockwise to reduce volume.

### ■ Channel selection

Rotate the dial selection knob to increase or decrease the channel. Voice announcement for channel number indicator (programmable) will be heard.

### ■ Monitor

This allows you to over ride the squelch

## ■ Transmission

Before transmitting, monitor the channel you are using to ensure it is not busy. Keep pressing PTT button and start talking at approximately 2 inches from the MIC hole. During transmitting, the LED on the top of the radio will glow red. Release PTT button when you finish talking.

## 5. Programming Setting

Following parameters is allowed to select or set by programmer.

☐ Radio Parameters

☐ TOT (time Out Timer)

☐ Battery Low Setting

☐ Battery Saving Setting

☐ Voice Announcement Setting

There are Chinese or English voice announcement for choosing.

### **Hi/Low Power Setting**

High power to communicate with long distance, low power work with short distance, each channel to be set high or low.

### **SQL Level Setting**

Squelch level is allowed to select for filter low signal or useless calling.

### **VOX Level Setting**

This function enable you hand free calling in the preprogrammed channel, regardless when the VOX accessories detect voice, the radio will automatically send the single during the programmed time.

### **BCLO**

The radio inhibits any attempted transmission if carrier only is currently being detected on the receive frequency.

### **BTLO**

BTLO is mainly for repeater application. It will not be transmitted until receiving RX carrier with correct sub tone. If the repeater is occupied by other group when you press PTT button, BTLO will standby till the using group is leaving.

### **PTT ID**

- (1) Pressed PTT button
- (2) Released PTT button
- (3) Both Pressed and Released ptt button.

## **6. Waterproof**

The radio is guaranteed waterproof underwater 1M for 30 minutes.

-  If after dismantling the radio, we can not guarantee its waterproof function.
-  If plug non-original external speaker/microphone accessories, we can not guarantee its waterproof function.

## 8. Specifications

| General               |       |                   |
|-----------------------|-------|-------------------|
| Characteristics       | Units | Value             |
| Frequency Range       | MHz   | 400~470           |
| Output power          | W     | 5W /1W            |
| Channel Number        | CH    | 128               |
| Channel Spacing       | KHz   | 12.5 / 25         |
| Modulation Type       |       | 4FSK              |
| Power Source          | V     | 7.4VDC            |
| Antenna Impedance     | ohm   | 50                |
| Battery type          |       | li-polymer        |
| Operation Temperature | °C    | -20 to +55        |
| Dimension             | mm    | 115x59x35 (H*W*D) |
| Weights               | G     | 274.8             |

## FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation. NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Warning! :

The portable radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only," meaning it must be used only during the course of employment by individuals aware of the hazards and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

The device complies with RF specifications when the device is used at 25 mm from your front face and 0mm from your body, SAR compliance for body-worn operating configurations is limited to the specific belt clip/ holster/accessories tested for this product. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Maximum SAR Value (1g): 2.37 W/Kg.

The maximum permissible duty cycle is 50% during the operations.