

*chierda*

TC328Plus  
Two Way  
Radio



# Chierda TC328Plus Two Way Radio User Manual

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**Chierda TC328Plus Two Way Radio**



## Product Information

The TC328Plus Two Way Radio is designed for reliable communication over short to medium distances. It operates in the frequency range of 400-480MHz with multiple power levels and modulation types for versatile usage.

## SPECIFICATION

|   |  |
|---|--|
| Frequency Range   | 400-480MHz   |
| Power   | High Power: 4.5W; Midium Power:4.0W; Low Power: 1.0W |
| Channel Spacing   | 12.5 kHz   |
| Antenna Impedance   | 50Ω  |
| Operating Temperature   | -10°C ~ 45°C   |
| Operating Voltage   | DC7.4V   |
| IP Protection Level   | IP67   |
| Dimension (Excluding antenna)   | 126*58*36mm (Not including knob and antenna)         |
| <p>* Frequency range take different variations according to the type of device you access because a radio designated for business use must comply with local rules, for example, in EU member states. If the type is subject to restrictions on putting into service or to requirements for authorization of use in your local district, your dealer or system administrator may set the operating frequency, and you cannot change the frequency. Please contact them for more information.</p> <p>Note: To prevent radio interference caused by end-user transmissions on unauthorized frequencies, a user cannot modify channels preset by the manufacturer, equipment supplier, service technician, or maintenance personnel.</p> |  |

## TRANSMITTER

|                                |   |
|--------------------------------|---|
| Modulation Type                | FM,4FSK                                 |
| Free Time Slot Power           | $\leq -57\text{dB}$                     |
| Audio Distortion               | $\leq 5\%$                              |
| Modulation BER(Bit Error Rate) | $\leq 3\%$                              |
| Sensitivity                    | $\leq -122\text{dBm}@SINAD=12\text{dB}$ |
| Adjacent Channel Selectivity   | $\geq 70\text{dB}$                      |
| Inter-modulation               | $\geq 65\text{dB}$                      |
| Block                          | $\geq 84\text{dB}$                      |
| S/N                            | 45dB                                    |
| Audio Output Power             | 750mW                                   |
| Audio Distortion               | $\leq 5\%$                              |

## Main Functions and Features

- English/Chinese Voice Prompts
- Monitor
- AES256
- High/Middle/Low Power Adjustable
- vox
- TOT
- Power Save/Low Power Alarm
- Battery Indicator
- Talk around
- Lone Worker
- Scan
- Emergency Alarm
- All Call/Group Call/Private Call
- Radio Kill/Active
- One Key Call
- Noise Canceling

## Unpacking and Checking Equipment

Welcome to use our Two Way Radio. Before use, we suggest you:

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

## TRANSMITTER

| Item                  | Quantity |
|-----------------------|----------|
| Two Way Radio         | 1        |
| Antenna               | 1        |
| Battery               | 1        |
| Battery Charger       | 1        |
| Type-C Charging Cable | 1        |
| Belt Clip             | 1        |
| Hand Strap            | 1        |
| User Manual           | 1        |

### 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 the battery, then the light turns red, indicating that the battery is being charged.
3. If the indicator lights up green, charging is completed.
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.
- The battery may not reach its normal operating capacity when charging for the first time after purchase or extended storage (more than 2 months). After fully charged/discharged two or three times, the operating capacity will reach the best performance.

Please do not continue charging when the battery is fully charged, otherwise, it will shorten the life of the battery.

### Note

1. The ambient temperature should be between 50C and 400C while charging. Otherwise, the battery can not be fully charged.  
Please prepare a spare battery to use during cold weather. Don't throw away batteries that can not be used at this time. They may be used at normal temperatures.
2. When the battery contacts are dirty or stained, it will affect charging use. Please wipe the battery 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. Please dry it before use.
5. If the battery capacity can not return to normal after being charged properly, its life is ended. Please replace it.

### Battery Type

Please charge our company's official battery. Using other battery types may cause explosions and injure people.

### Safety Precautions

1. Do not throw batteries into the fire.
2. Do not disassemble the battery pack housing by yourself.

### **Battery storage**

1. The battery has the phenomenon of self-discharge. Therefore, if the battery is not used for a long, please charge it fully before storage and charge the battery after storing it for periods. This is to avoid battery damage due to excessive self-discharge.
2. Please pay attention to the temperature and humidity of the battery storage environment. Keep the battery in a cool, dry condition room to decrease battery self-discharge.

### **Install/Remove Accessories**

#### **Install/Remove Battery**

##### **Note:**

- Don't short-circuit the battery terminal and throw the battery into the fire.
- Don't remove the battery shell.
- Don't install the battery in dangerous environments. The fire will cause an explosion.

**Install:** Put the battery in the battery socket. Push the battery forward and hear a click sound, the battery is installed.

**Remove:** To remove the battery, turn off the radio first. Push the battery clip and the battery down until the battery leaves the radio.

#### **Install Antenna**

Hold the antenna base and rotate it clockwise to the top port until it rotates it tightly.

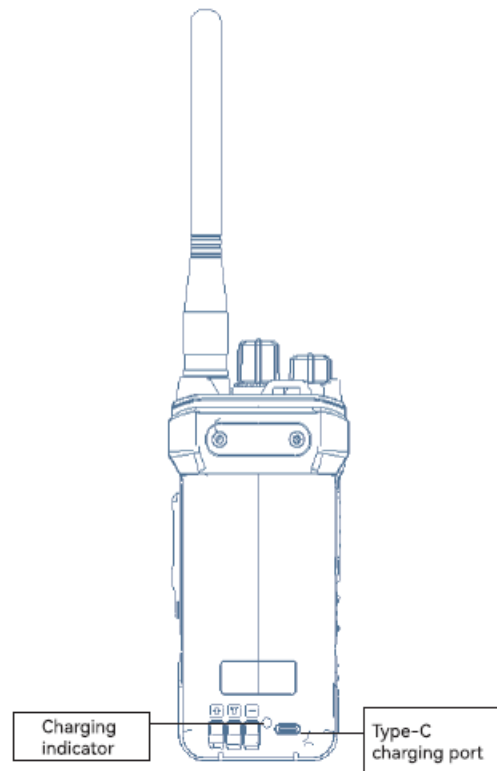
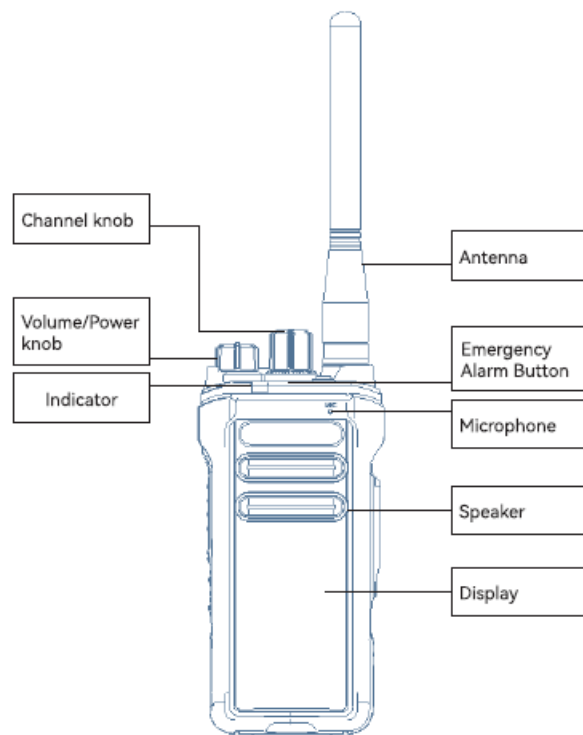
#### **Install/Remove Belt Clip**

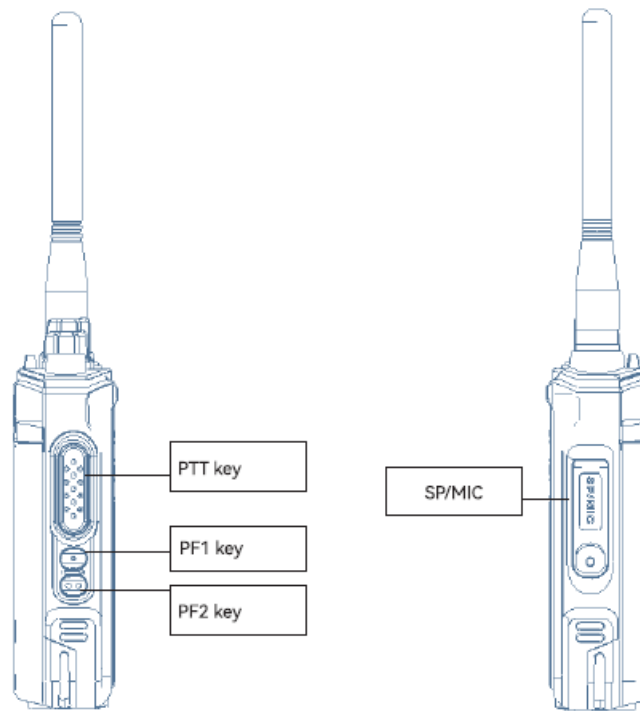
If you need, screw the supplied belt clip to the battery back for easy carry.  
Remove the 2 screws when removing the belt clip.

#### **Install Radio Hand Strap**

Thread the radio strap through the loop in the middle of the radio.

### **Getting Started**





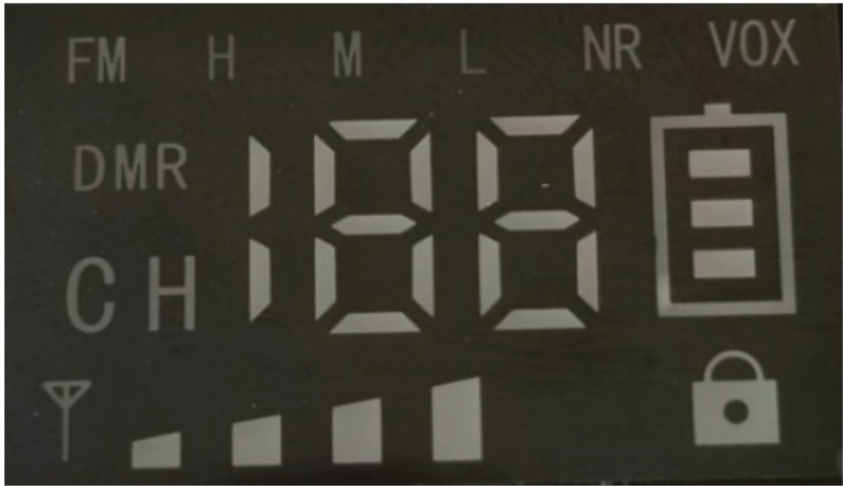
**Remark:** Different functions of Side Key 1, Side Key 2, which are used by the long press or a short press, can be defined by CPS.

The following functions can be defined:




#### **Side Key:**

1. None
2. Momentary Press)
3. Stable Monitor(Analog)
4. Transmit Power
5. VOX On/Off
6. Company On/Off
7. Scramble On/Off
8. Zone UP
9. Zone Down
10. Talk round
11. Radio Kill
12. Radio Wakeup
13. Emergency Call On
14. Emergency Call Off
15. One Touch Call 1
16. One Touch Call 2
17. One Touch Call 3
18. One Touch Ca114
19. One Touch Call 5
20. Lone Worker
21. Noise Reduction On/Off

Display



Display Description

| NO. | CHAR  | Description       |
|-----|---|-------------------|
| 1   | H   | High Power        |
| 2   | M   | Medium Power      |
| 3   | L   | Low Power         |
| 4   | NR  | Noise Reduction   |
| 5   | VOX   | VOX               |
| 6   | DMR   | DMR Mode          |
| 7   | CH  | Channel           |
| 8   | 188   | Channel Number    |
| 9   |  | Channel Lock      |
| 10  |  | Battery Indicator |
| 11  |  | TX/RX Signal Icon |

Basic Operations

POWER ON and POWER OFF:

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

Attention:

- If your transceiver is not powered on, please check the battery. Confirm if the battery has been charged and installed correctly. Please contact the agent if it still can not be powered on.
- To turn off the transceiver, please rotate the Volume/Power knob anticlockwise until a “click” is heard, then the transceiver is powered off.

Adjust Volume



- When the transceiver is powered on, rotate the Volume/Power knob to adjust the volume.
- Clockwise rotation to increase the volume;
- Anticlockwise rotation to decrease the volume.
- You can press the side key programmed with the MONITOR function to monitor the current volume.

**Attention:** PFI or PF2 Key can be set as the MONITOR key according to the CPS.

### **Transmit**

Press the PTT key, and keep the microphone from your mouth about 3-4cm when transmitting. Speak in your usual tone.

### **Receive**

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

### **Transmit**

Press the PTT key, and keep the microphone from your mouth about 3-4cm when transmitting. Speak in your usual tone.

### **Receive**

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

## **Function Specification**

### **LED indicator**

- LED indicator shows the transceiver's working status.
- A red light indicates the transceiver is transmitting.
- A green light indicates the transceiver is receiving a non-encrypted signal or data.

## **Receive and Transmit Calls**

### **Zone Selection**

The zone is a group of channels. The transceiver supports 2 zones at most, and each has not more than 32 channels.

1. Press the pre-programmed Zone UP/Down key.
2. You will hear a voice prompt announcing the current Zone.
3. Rotate the channel knob to choose the desired transmitting channel.

### **Receive and Reply Call**

- You can receive or reply to call after setting the channel, user ID, or group ID.
- When transmitting the transceiver, the LED indicator turns red.
- When receiving the message, the LED indicator turns green.

### **Receive and Reply Group Call**

To receive a call from a user's group, the transceiver must belong to that group.

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

### **Receive and Reply Individual Call**

Private Call is one-to-one calling.

When Receiving a Private Call:

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

### **Receive All Call**

All Call is a call from an individual transceiver that calls all transceivers at the same channel. It is used to announce something important that users must pay special attention to.

When receiving all call, the LED indicator turns green.

**Notice:** when receiving all call, if you turn to another channel, the transceiver stops receiving all call. You can not use any re-programmed key until the call finishes.

### **Launch a Transceiver Call**

- You can choose a channel, user ID, or talking group ID through the following methods.
- Channel Knob

### **Launch a Group Call**

To launch a group call, To launch the group call, the transceiver must belong to that group.

1. Rotate channel knob, using activated group ID to select the talking group.
2. Hold the transceiver vertically and keep about 1—2 inches (2.5-5.0cm) 15 away from the mouth.
3. Press PTT key to launch the call, and the LED indicator turns red.
4. Release PTT key to receive, when the target transceiver is responding, LED indicator turns green.

### **Launch a Private Call**

1. Rotate channel knob, using activated user's ID to select channel.
2. Hold the transceiver vertically and keep about 1-2 inches (2.5- 5.0cm) away from the mouth.
3. Press PTT key to launch the call, and the LED indicator turns red.
4. Release PTT key to receive, when the target transceiver is responding, the 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 talking group ID to select a channel.
2. Hold the transceiver vertically and keep about 1—2inches (2.5- 5.0cm) away from the mouth.
3. Press PTT key to launch the call, and the LED indicator turns red.

### **Monitor Function (Analog)**

The monitor is divided into temporary and permanent monitor. It is the receive method for receiving weak signals. Press the specific key to turn on the signal reception channel force. The operator recognizes the weak sound from the speaker through the ear to get reception. Analog monitor filters the own CTCSS/DCS temporarily. Analog permanent filters the own CTCSS/DCS forever.

- Set PFI or PF2 short or long press as the permanent monitor.
- Set the PFI or PF2 long press as the temporary monitor.

### **Power Adjustment**

Set the PFI or PF2 short or long press as the power adjustment. Press the corresponding key to switch high, middle, and low power circles, broadcasting the current power.

### **VOX ON/OFF**

- **Method 1:**Set the PFI or PF2 key short or long press as the VOX ON/OFF inside software. Press the corresponding key, and the radio broadcasts ON, the VOX function is turned on. Speak towards the microphone to transmit without pressing PTT. Press the designate key again, and the radio broadcasts OFF, the VOX function is turned off. The VOX icon on display disappears.
- **Method 2:**Long press the side key 2 + PTT key and turn on the radio. VOX is turned on when hearing the ON prompt. Repeating action: Long press the side key 2 + PTT key and turn on the radio again, VOX is turned off when hearing the OFF prompt.

### **Commanding (Analog)**

Set the PFI or PF2 key to the commanding ON/OFF. Press the key and broadcast the ON to turn on the commanding function (radios turn on or off the function simultaneously). Broadcast the OFF to turn off the commanding function.

### **Encryption Function (Analog/Digital)**

**Note:** Analog channels are scramble ON/OFF. Digital channels are encryption ON/OFF.

1. Analog scramble ON/OFF: Off is no encryption, and On is the current channel encryption.  
Set the PFI or PF2 short or long press as the scramble ON/OFF. Press the corresponding key, and the radio broadcasts ON, the scramble/encryption function is turned on. Press the key again, and the radio broadcasts OFF, the scramble/encryption function is turned off.
2. Digital encryption list: OFF: Not encrypt, 1-10 encryption group is optional. The basic encryption is 8 bits. AES256 advanced encryption is 64 bits. The encryption consists of A, B, C, D, E, F, and 0-9 numbers.

### **Talk around**

### **In Different Frequency Mode:**

- When turned off, it is in repeater mode and needs repeater transformation to communicate. When turned on, it turns on the talk around function and turns to simplex mode. The transmit frequency will become the same as the receive frequency. (Two radios need to turn on the talk around function at the same time)
- Set the PFI or PF2 short or long press as the talk around ON/OFF. Press the corresponding key, and the radio broadcasts ON, the talk around function is turned on. Press the key again, and the radio broadcasts OFF, the different frequency transfer mode is turned on.

### Remote Kill (Digital Individual Call)

Set the PFI or PF2 short or long press as the remote kill ON/OFF. The receiver is killed when pressing the key and hearing a beep sound.

The receiver can't transmit & receive and operate any function.

### Activation (Digital Individual Call)

Set the PFI or PF2 short or long press as the activation ON/OFF. The receiver restarts automatically and restores to normal when pressing the key and hearing a beep sound.

### Transmission Permission

- **Allow transmission:** whether it has activities, users can press the PTT key on the radio to transmit.
- **Free channel:** When the channel is free, allow for transmitting when there isn't a carrier signal in the same frequency. The radio can't allow to transmit when there is a signal on the channel.
- **Only receive:** Forbid radio transmits on the channel. But the radio can receive normally.

### Emergency arm

Set alarm mode and type of emergency alarm system:

- Normal: IOS direct communication without pressing the PTT key + remote alarm whistle + indicator lights up the red circle (Channel transmission contact must be the group call contact ).
- Turn on the warning light and whistle: the radio alarms.
- Turn on the alarm indicator and whistle: The radio whistle and the indicator lights up red.
- Turn on the whistle: Only the radio whistle, the indicator has no change.

Emergency alarm transmit radio long press the emergency alarm key to turn on and turn off the alarm function. Set the alarm times (impolite and retry). Emergency alarm receive radio press the PTT key to cancel the alarm.

### One Key Call

One key call is valid in digital channels. It can be set to call certain contacts quickly. Digital individual ID channels can be set: Calls, Messages, Call prompts, Radio check, Radio kill, Radio activation, and Remote monitor function.

One key call 1-5 corresponding function setting, for example, following

| No | Mode    | Call                          | Call Type        |
|----|---------|-------------------------------|------------------|
| 1  | Digital | Contact3 (Individual call ID) | Call             |
| 2  | Digital | Contact3 (Individual call ID) | Radio check      |
| 3  | Digital | Contact3 (Individual call ID) | Radio kill       |
| 4  | Digital | Contact3 (Individual call ID) | Radio activation |

### 1. Call (Digital)

Set the PFI or PF2 short or long press as the one-key call 1. The indicator will light up lightly green within 3-5s. Press the PTT key and send the call to the contact 3.

### 2. Radio Check (Digital individual call)

Set the radio check to the PFI or PF2 short or long press of the one-key call 3. Press the key and send the check order to the receiver.

The red indicator will flash 4 times. And the radio will prompt a beep sound if the receiver is set incorrectly or is offline. It means that the radio can't contact the receiver.

### 3. Radio Kill (Digital individual call)

Set the radio kill to the PFI or PF2 short or long press of the one-key call 4. The receiver is killed when pressing the key and hearing a beep sound. The receiver can't transmit & receive and operate any function.

### 4. Radio Activation (Digital individual call)

Set the radio activation to the PFI or PF2 short or long press of the one-key call 5. The receiver restarts automatically and restores to normal when pressing the key and hearing a beep sound.

### Lone Worker ON/OFF (Channel transmission contact must be group call contact )

Set the PFI or PF2 to the lone worker function. Set lone worker response time and remind time in CPS. Lone worker response time means, if in the pre settled (1 -255 minutes optional) time period no operate the radio at all, it will trigger the alarm. Set the reminder time for lone worker (the time can be set from 1 to 255 seconds). You can get a reminder warning before the lone worker alarm is triggered.

If you operate the intercom within the warning time, the alarm will be reset.

### CTCSS/DCS List

| CTCSS CHART (Hz) |           |        |           |        |           |        |           |        |           |
|------------------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|
| Number           | Frequency | Number | Frequency | Number | Frequency | Number | Frequency | Number | Frequency |
| 1                | 67.0      | 2      | 69.3      | 3      | 71.9      | 4      | 74.4      | 5      | 77.0      |
| 6                | 79.7      | 7      | 82.5      | 8      | 85.4      | 9      | 88.5      | 10     | 91.5      |
| 11               | 94.8      | 12     | 97.4      | 13     | 100.0     | 14     | 103.5     | 15     | 107.2     |
| 16               | 110.9     | 17     | 114.8     | 18     | 118.8     | 19     | 123.0     | 20     | 127.3     |
| 21               | 131.8     | 22     | 136.5     | 23     | 141.3     | 24     | 146.2     | 25     | 151.4     |
| 26               | 156.7     | 27     | 159.8     | 28     | 162.2     | 29     | 165.5     | 30     | 167.9     |
| 31               | 171.3     | 32     | 173.8     | 33     | 177.3     | 34     | 179.9     | 35     | 183.5     |
| 36               | 186.2     | 37     | 189.9     | 38     | 192.8     | 39     | 196.6     | 40     | 199.5     |
| 41               | 203.5     | 42     | 206.5     | 43     | 210.7     | 44     | 218.1     | 45     | 225.7     |
| 46               | 229.1     | 47     | 233.6     | 48     | 241.8     | 49     | 250.3     | 50     | 254.1     |

| DCS CODELIST |       |        |       |        |       |        |       |        |       |
|--------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| Number       | DCS-N | Number | DCS-N | Number | DCS-N | Number | DCS-N | Number | DCS-N |
| 1            | D023N | 2      | D025N | 3      | D026N | 4      | D031N | 5      | D032N |
| 6            | D036N | 7      | D043N | 8      | D047N | 9      | D051N | 10     | D053N |
| 11           | D054N | 12     | D065N | 13     | D071N | 14     | D072N | 15     | D073N |
| 16           | D074N | 17     | D114N | 18     | D115N | 19     | D116N | 20     | D122N |
| 21           | D125N | 22     | D131N | 23     | D132N | 24     | D134N | 25     | D143N |
| 26           | D145N | 27     | D152N | 28     | D155N | 29     | D156N | 30     | D162N |
| 31           | D165N | 32     | D172N | 33     | D174N | 34     | D205N | 35     | D212N |
| 36           | D223N | 37     | D225N | 38     | D226N | 39     | D243N | 40     | D244N |
| 41           | D245N | 42     | D246N | 43     | D251N | 44     | D252N | 45     | D255N |
| 46           | D261N | 47     | D263N | 48     | D265N | 49     | D266N | 50     | D271N |
| 51           | D274N | 52     | D306N | 53     | D311N | 54     | D315N | 55     | D325N |
| 56           | D331N | 57     | D332N | 58     | D343N | 59     | D346N | 60     | D351N |
| 61           | D356N | 62     | D364N | 63     | D365N | 64     | D371N | 65     | D411N |
| 66           | D412N | 67     | D413N | 68     | D423N | 69     | D431N | 70     | D432N |
| 71           | D445N | 72     | D446N | 73     | D452N | 74     | D454N | 75     | D455N |
| 76           | D462N | 77     | D464N | 78     | D465N | 79     | D466N | 80     | D503N |
| 81           | D506N | 82     | D516N | 83     | D523N | 84     | D526N | 85     | D532N |
| 86           | D546N | 87     | D565N | 88     | D606N | 89     | D612N | 90     | D624N |
| 91           | D627N | 92     | D631N | 93     | D632N | 94     | D645N | 95     | D654N |
| 96           | D662N | 97     | D664N | 98     | D703N | 99     | D712N | 100    | D723N |
| 101          | D731N | 102    | D732N | 103    | D734N | 104    | D743N | 105    | D754N |
| 106          | D023I | 107    | D025I | 108    | D026I | 109    | D031I | 110    | D032I |
| 111          | D036I | 112    | D043I | 113    | D047I | 114    | D051I | 115    | D053I |
| 116          | D054I | 117    | D065I | 118    | D071I | 119    | D072I | 120    | D073I |
| 121          | D074I | 122    | D114I | 123    | D115I | 124    | D116I | 125    | D122I |
| 126          | D125I | 127    | D131I | 128    | D132I | 129    | D134I | 130    | D143I |
| 131          | D145I | 132    | D152I | 133    | D155I | 134    | D156I | 135    | D162I |
| 136          | D165I | 137    | D172I | 138    | D174I | 139    | D205I | 140    | D212I |
| 141          | D223I | 142    | D225I | 143    | D226I | 144    | D243I | 145    | D244I |
| 146          | D245I | 147    | D246I | 148    | D251I | 149    | D252I | 150    | D255I |
| 151          | D261I | 152    | D263I | 153    | D265I | 154    | D266I | 155    | D271I |
| 156          | D274I | 157    | D306I | 158    | D311I | 159    | D315I | 160    | D325I |
| 161          | D331I | 162    | D332I | 163    | D343I | 164    | D346I | 165    | D351I |
| 166          | D356I | 167    | D364I | 168    | D365I | 169    | D371I | 170    | D411I |

|     |       |     |       |     |       |     |       |     |       |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 171 | D412I | 172 | D413I | 173 | D423I | 174 | D431I | 175 | D432I |
| 176 | D445I | 177 | D446I | 178 | D452I | 179 | D454I | 180 | D455I |
| 181 | D462I | 182 | D464I | 183 | D465I | 184 | D466I | 185 | D503I |
| 186 | D506I | 187 | D516I | 188 | D523I | 189 | D526I | 190 | D532I |
| 191 | D546I | 192 | D565I | 193 | D606I | 194 | D612I | 195 | D624I |
| 196 | D627I | 197 | D631I | 198 | D632I | 199 | D645I | 200 | D654I |
| 201 | D662I | 202 | D664I | 203 | D703I | 204 | D712I | 205 | D723I |
| 206 | D731I | 207 | D732I | 208 | D734I | 209 | D743I | 210 | D754I |

## RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR Two way Radio

### CAUTION!

- Before using this device, please read this guide which contains important operating instructions for safe usage, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards.
- User' instructions should accompany the device when transferred to other users.

### Unauthorized modification and adjustment

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority granted by the local government radio management departments to operate this radio and should not be made. To comply with the corresponding requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the local government radio management departments equipment authorization for this radio could violate the rules.

### Radio License

Governments keep the radios in classification. Two Way Radio are only operated on authorized radio frequencies that are regulated by the local radio management departments (such as FCC, ISED, OFCOM, ANFR, BFTK, Bundesnetzagentur, and so on.). The detailed classification and the use of your two radios, please contact the local government radio management departments. Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

### FCC Requirements

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:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void t he user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device. 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, 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.

### **CE Requirements:**

(Simple EU declaration of conformity) Shenzhen Retevis Technology Co., Ltd. declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the ROHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: [www.retevis.com](http://www.retevis.com).

### **Restriction on putting into service**

- This product may be used in following countries and regions, including: Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and United Kingdom (UK).
- For the intended country of use, please refer to the package.
- This radio equipment is subject to restrictions on putting into service or to requirements for authorisation of use. Please make sure you have a valid radio license or radio operator permit before use.

### **Disposal**

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, and accumulators must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws and rules in your area.

### **RF safety**

This Two Way Radio uses electromagnetic energy in the radio frequency (RF) spectrum to provide communications between two or more users over a distance. RF energy, which when used improperly, can cause biological damage. Please refer to the following websites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits: <http://www.who.int/en/>

Keeping the radio at a proper distance is important as RF exposure decreases with increasing distance from the proper antenna. A proper antenna is the antenna supplied with this radio by the manufacturer or specifically authorized by the local authority for use with this radio. This radio can only be operated by use of an antenna of a type and maximum (or lesser) gain approved for the transmitter under regulations and rules. This transmitter must operate with the antenna(s) documented and in Push-to-Talk and body-worn configurations as documented. Using Authorized accessories is important because the use of Non-Retevis accessories may result in exposure levels, which exceed the IEEE/ICNIRP RF exposure limits.

Transmit no more than the rated duty factor of 50% of the time. Transmitting necessary information or less, is important because the radio generates measurable RF energy exposure only when transmitting in terms of measuring for standards compliance. Some measures to reduce your RF exposure include:

- Reduce the amount of time spent using your wireless device.



- Use a speakerphone, earpiece, headset, or hands-free accessory to reduce proximity to the head (and thus head exposure). While wired earpieces may conduct some energy to the head and wireless earpieces also emit a small amount of RF energy, both wired and wireless earpieces remove the greatest source of RF energy (handheld device) from proximity to the head and thus can greatly reduce total exposure to the head.
- Increase the distance between wireless devices and your body.

### **Only for licensed transmitters**

This radio is designed for and classified as “Occupational/Controlled Use Only”. Occupational/Controlled environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential of exposure. It meaning a radio must be used only by individuals aware of the hazards, and the ways to minimize such hazards;

NOT intended for use in a General population/uncontrolled environment.

### **For handheld devices**

#### **Hand-held Mode**

To control your exposure and ensure compliance with the Occupational Controlled environment exposure limits, always adhere to the following procedure:

- SAR tests are conducted using standard operating positions accepted by FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC.
- Tests for each product are performed in positions and locations as required by the FCC.
- For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal.
- To maintain compliance with FCC RF exposure guidelines hold the transmitter and antenna at least 25mm from your face and speak in a normal voice, with the antenna pointed up and away from the face. use of non-approved antennas, batteries, and accessories may cause the radio to exceed the FCC RF exposure guidelines.
- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button.
- To receive calls, release the PTT button. Transmitting 50% of the time, or less, is important because the radio generates measurable

### **7.1 Electromagnetic Interference/Compatibility**

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility. During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems.. To avoid such interference, turn off the radio in areas where signs are posted to do so, such as hospitals or health care facilities

#### **TX**

Persons with pacemakers, Implantable cardioverter defibrillators (ICDs) or other active implantable medical devices should.

- Consult with their physicians regarding the potential risk of interference from radio frequency transmitters, such

as portable radios (poorly shielded medical devices may be more susceptible to interference).

- Turn the radio OFF immediately if there is any reason to suspect that interference is taking place.
- Do not carry the radio in a chest pocket or near the implantation site, and carry or use the radio on the opposite side of their body from the implantable device to minimize the potential for interference.

**Hearing Aids:** Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

**Other Medical Devices:** If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

#### **Turn off your radio power in the following conditions:**

- Turn off your radio before removing or installing accessory.
- Turn off your radio prior to entering any area with a potentially hazardous or explosive atmosphere. Only radio types that are especially qualified should be used in such areas as “Intrinsically Safe”

#### **WARNING**

**Note:** The areas with potentially explosive atmosphere referred to above include blasting caps, blasting area, inflammable gas, dust particles, metallic powders, grain powders, fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles (such as grain, dust or metal powders) and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often — but not always posted.

- Turn off your radio when taking on fuel or parked at gasoline service stations.
- Do not use any radio that has a damaged antenna. If a damaged antenna comes into contact with the skin when the radio is in use, a minor burn can result.
- Do not place a portable radio in the area over an air bag or in the air bag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the air bag inflates.
- Turn off your radio when on board an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

#### **Use of Communication Devices While Driving**

- Always check the laws and regulations on the use of radios in the areas where you drive. Use of Communication Devices, for example, mobile radio, may not be allowed.
- Give full attention to driving and to the road.
- Use hands-free operation, if available.
- Pull off the road and park before making or answering a call, if driving conditions or regulations so require.

#### **Protect your hearing**

- Use the lowest volume necessary to do your job.

- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before adding headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear
- Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss

**Note:** Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the radio's volume, the less time is required before your hearing could be affected. Hearing damage from loud noise is sometimes undetectable at first and can have a cumulative effect.

## **WARNING**

The plug of adapter is considered as disconnect device. The socket-outlet shall be installed near the equipment and shall be easily accessible.

## **Warranty Card**

- Product model:
- Serial Number:
- Seller:
- Username:
- Address:
- Date of purchase:
- Contact number:
- Zip code :

## **Warranty description**

1. The warranty card is saved by the customer as the warranty certificate, and the loss is not compensated.
2. This card must be stamped and dated for sale to take effect.
3. This card must not be altered. Please confirm that the warranty card serial number matches the purchase machine number, otherwise it will be invalid.
4. The warranty period is one year. Chargers, batteries, headphones, antennas and feeders are consumables, not covered by warranty.
5. Users can choose the following ways to get repair service:
  - At the original purchase office.
  - Our company is in the local special maintenance point.


Quanzhou Chierda Electronic Telecom Co., Ltd.  
No.8,Zi'an Road,Jiangnan High-tech Industrial Zone Licheng  
District, Quanzhou Fujian, China

## **FAQ**

### **Q: How do I change the power level on the TC328Plus?**

A: To change the power level, navigate to the settings menu and select the desired power setting (High/Medium/Low).

Documents / Resources

|   |   |
|---|---|
|  | <p><a href="#">Chierda TC328Plus Two Way Radio</a> [pdf] User Manual<br/>TC328Plus, TC328Plus Two Way Radio, Two Way Radio, Radio</p> |
|---|---|

References

- [User Manual](#)

[Manuals+](#). [Privacy Policy](#)

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