# User Manual

**To customers:**

Welcome to choose the radio produced by our company. We believe that the radio will bring great convenience to your life and work. The radio adopts advanced technology. We hope that the quality and functions will make you satisfied. It will bring you convenient, quick, and reliable two-way radio communication.

**Users Attentions**

·Before using the radio, read the manual carefully.

·Don't use or charge the radio in flammable, explosive, and prohibited environments (such as gas stations, airports, etc.)

·Don't use the radio to transmit without getting permission in government-prohibited areas.

·Don't be exposed to the radio to the sun for a long time, or place it near heating equipment.

·Don't place **radio in position that is** dirty, wet, and **with** splashing water. Don't place the radio on an unsteady surface.

·If the radio sends an abnormal smell or smog, remove the battery from the radio, and contact the company or local dealer immediately.

·The repairs must be finished by professional technicians. Prohibit to disassembling yourself.

**Out-of-box Check**

Before using it, open the package box, and check the radio in the package and equipped accessories on the list. If any item is lost or broken, contact delivers or dealers immediately.

**Item List**

| Item | Quantity |
|------|----------|
| Radio | 1 |
| Antenna | 1 |
| Battery7.4V | 1 |
| Charging base | 1 |
| Type-C charging cable | 1 |
| Belt clip | 1 |
| Hand strap | 1 |
| User manual | 1 |

**Preparation**

**Attentions**

- **Don't charge the battery pack for a long time!**

If the charging is not completed after charging for 6 hours, stop charging. The battery pack may overheat, smog burst, and fire suddenly.

- **Don't put the battery into the microwave oven or high-pressure container!**

The battery pack may overheat, smog burst, and fire suddenly.

- **Don't put the broken and leaking battery pack near the fire!**

If the battery pack leaks (or sends a pungent smell), put it away from the explosive areas. The electrolyte of the battery pack fires easily. It may overheat, smog burst, and fire suddenly.

- **Don't use the abnormal battery pack!**

If the battery pack sends a pungent smell, looks different colors, becomes deformed, or appears in any abnormal situations, remove the battery pack from the charger or the radio and don't use it.

- **Use the specific charger ( The C9034A adapter is recommended)**

Please charge the battery with the specific charger. Charge the battery under **following**
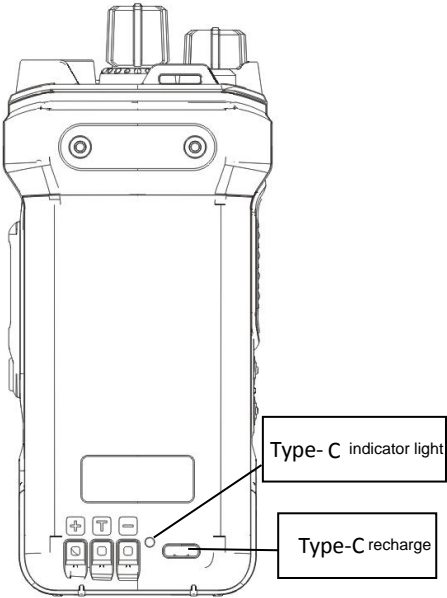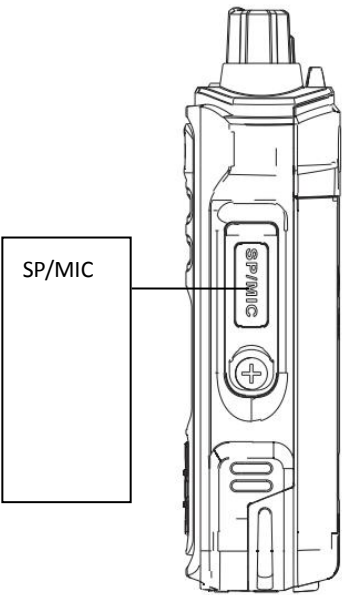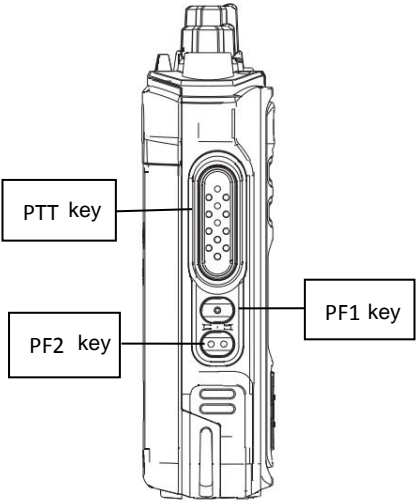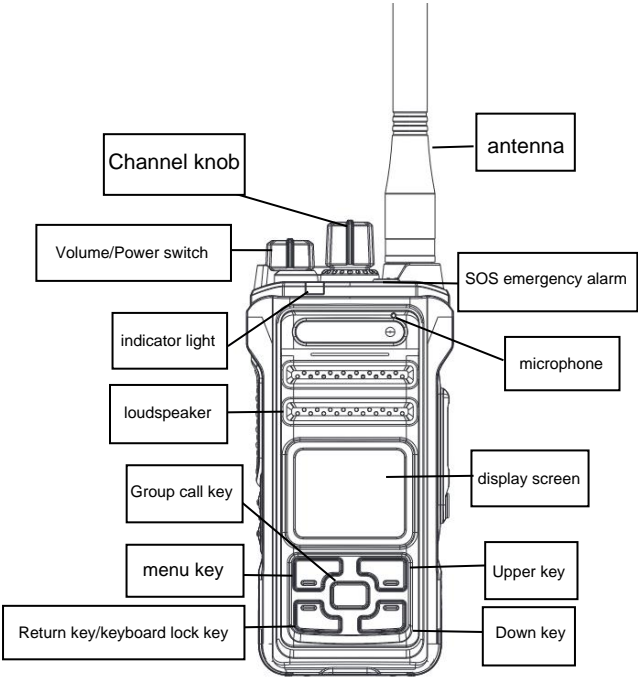
methods.

**Charging Operations**

**Note: Turn off the radio when charging it.**
● Plug the charger to the power outlet
1. Desktop charging: Plug the battery or a whole radio into the desktop charger. Tightly contact the charging base. The indicator lights up red and the radio is charging.
When the indicator turns green, the radio is fully charged.
Unplug the charger from the socket and take out the battery.
2. Type-C charging: Standard 5V/1A output charger. Type-C charging cable plugs into the Type-C charging port on the radio. The indicator lights up red and the radio is charging.
When the indicator turns green, the radio is fully charged.
Unplug the charging cable and charger.

--------§ 95.1743 Minor GMRS operators.

Operators under the age of 18 will not be held personally responsible, pursuant to § 95.343, for improper operation of a GMRS repeater or base station. The holder of the individual license under which the minor operates is solely responsible for any improper operation that occurs while an individual under the age of 18 is operating the station.

## Familiar with Radio

Channel knob — antenna

Volume/Power switch

SOS emergency alarm

indicator light

microphone

loudspeaker

Group call key — display screen

menu key — Upper key

Return key/keyboard lock key — Down key

PTT key

PF2 key — PF1 key

SP/MIC

Type- C indicator light

Type-C recharge

**Icon Instructions**

| No | Icon | Instruction |
|----|------|-------------|
| 1 | 📶 | Transmit & Receive signal |
| 2 | **H** | High power |
| 3 | **L** | Low power |
| 4 | **T** | Talk around |
| 5 | **GRP** | Group call |
| 6 | **VOX** | VOX |
| 7 | **NR** | Noise reduction |
| 8 | 🔒 | Channel lock |
| 9 | ⊛ | NOAA |
| 10 | 🔒 | **Keyboard** lock |
| 11 | 🔋 | Battery indicate |

The Radio is pre-configured with 8 GMRS repeater channels: 467.5500, 467.5750, 467.6000, 467.6250, 467.6500, 467.6750, 467.7000 and 467.7250MHz. In basic terms, a repeater is a device that is used to increase the range of two way radios. Repeaters will receive a transmission on one frequency and simultaneously rebroadcast that transmission on different frequency. Repeaters are often set up in a fixed location and connected to an antenna that is mounted at a higher elevation to provide better range than is normally available with radio-to-radio(simplex) communications. Using GMRS repeaters can significantly increase the range of your radio, but just tuning to one of the repeater channels isn't necessarily going to work. You first have to be sure there is a repeater listening on that channel's frequency, and you have to be within range of that repeater. It is important to keep in mind that a GMRS repeater is not necessarily intended for public use. They are owned by individuals and are sometimes intended for private use or require permission to use. Before connecting to a GMRS repeater, be sure that you have permission or that the owner is fine with public use. The description on the my GMRS website usually indicates if permission is required and provides a way to get in touch with the owner.

**Basic Operations and Instructions**

**Turn on/off the radio**

Rotate the power knob clockwise and hear a click sound, the radio prompts the channel number and is turned on.

Rotate the power knob anticlockwise and hear a click sound, the radio is turned off.

**Volume +/-**
Rotate the volume knob clockwise to increase the volume. Rotate the volume knob anticlockwise to decrease the volume.

**Channel Adjustment**
Rotate the volume knob clockwise to increase the channel. Rotate the volume knob anticlockwise to decrease the channel.

**Keys Function**
1. **[MENU]**：Confirm key for the selected function options

2. **[EXIT]**：Shortly press: **EXIT** key
Long press: **Keyboard** lock key (other keys can't be use except the PTT, Group call and Emergency call keys ), long press the key again to unlock.

3. **[▲] Up Key**：In the menu, scroll up.

4. **[▼] Down Key**：In the menu, scroll down.

5. **[PTT] Key**：1. Achieve normal communication 2. In the menu, press the PTT key to return to the standby interface

6. **[PF1]**：Shortly press: Monitor (Lasting monitor)

7. **[GROUP]**：Long press: Group call

8. **[SOS]:** Set the local alarm or remote alarm through the CPS. Long press the key to turn on the alarm, and press the [**PTT**] key to cancel.

**Menu Function Instructions：**

1. **POWER**

Power switch, Middle/High/Low optional

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Power.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed Middle/High/Low power.

d.    Press the [**MENU**] key to confirm and save.


2. **VOX**

Turn on/off the VOX. When the VOX is set to ON, there is no need to press the PTT key when communicating. Speaking towards the microphone, the signal will be transmitted automatically. OFF, and level 1- level 9 are optional. Level 1 is the slowest, and level 9 is the most sensitive.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose VOX.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed OFF or 1-9 VOX level.

d.    Press the [**MENU**] key to confirm and save.


3. **GRP Channel**

One-key group call: After turning on the group call transmission, whichever channels the radios are, radios will be turned into the group call channel to transmit and receive.

Group call channel can choose from optional functions, or set restore time and PTT reply in the CPS (when turning on PTT reply, press the key to turn on the group call. After releasing the key, the transmitter and the receiver communicate by pressing the [**PTT**] key until the restore time to exit the group communication)

Release the [**GROUP**] key to exit the group call. OFF, and 1-16 channels are optional.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose GRP Channel.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed OFF or 1-16 channels.

d.    Press the [**MENU**] key to confirm and save.


4. **CTCSS/DCS**

CTCSS/DCS is OFF or 67-754I optional. The channels set to the CTCSS/DCS must match the correct CTCSS/DCS to achieve communication.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose CTCSS/DCS.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed OFF or 67-754I CTCSS/DCS. Long press the [▲] or [▼] key to switch quickly.

d.    Press the [**MENU**] key to confirm and save.

5. **Keypad Tone**

Beep is the power-on and key prompt sound. Beep has ON or OFF.

a.   Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Keypad Tone.

b.   Press the [**MENU**] key to enter the next-level menu.

c.   Press the [▲] or [▼] key to choose the needed OFF or ON.

d.   Press the [**MENU**] key to confirm and save.

6. **Voice**

Voice prompt setting has OFF or ON.

a.   Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Voice.

b.   Press the [**MENU**] key to enter the next-level menu.

c.   Press the [▲] or [▼] key to choose the needed OFF or ON.

d.   Press the [**MENU**] key to confirm and save.

7. **SQL**

The squelch level is 0-9 optional. The level 0 is always on, the level 1 is the lowest, and the level 9 is the highest.

a.   Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose SQL.

b.   Press the [**MENU**] key to enter the next-level menu.

c.   Press the [▲] or [▼] key to choose the needed 0-9 levels.

d.   Press the [**MENU**] key to confirm and save.

8. **NR**

Noise reduction setting has OFF or ON.

a.   Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose NR.

b.   Press the [**MENU**] key to enter the next-level menu.

c.   Press the [▲] or [▼] key to choose the needed OFF or ON.

d.   Press the [**MENU**] key to confirm and save.

9. **RESET**

Reset the radio to the factory setting.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose RESET.

b.    Press the[**MENU**]key to pop Sure to Reset.

c.    Press the[**MENU**]key to confirm reset.

d.    Press the[**EXIT**]key to cancel reset.

10. **Channel Lock**

After turning on the channel lock, channels can't be adjusted and the radio works on the current channel. OFF or ON is optional.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Channel Lock.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed OFF or ON.

d.    Press the [**MENU**] key to confirm and save.

11. **Back Light**

The back light setting is Cont or optional 1, 5, 10, 20, 60, 120s.

a.    Press the [**MENU**]key to enter the menu, and press the [▲] or [▼] key to choose Back Light.

b.    Press the[**MENU**]key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed Cont or 1, 5, 10, 20, 60, 120s.

d.    Press the[**MENU**] key to confirm and save.

12. **Talk Around**

After turning on the function, the transmit frequency **will change to be same as** the receive frequency, and they communicate directly without using the repeater. After turning it off, the transmit and the receive frequency are different. OFF or ON is optional.

a.    Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Talk Around.

b.    Press the [**MENU**] key to enter the next-level menu.

c.    Press the [▲] or [▼] key to choose the needed OFF or ON.

d.    Press the [**MENU**] key to confirm and save.

13. **Weather**

NOAA channels have NOAA-11 optional.

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| WX1 | 162.550MHz | WX7 | 162.525MHz |
| WX2 | 162.400MHz | WX8 | 161.650MHz |
| WX3 | 162.475MHz | WX9 | 161.775MHz |
| WX4 | 162.425MHz | WX10 | 161.750MHz |
| WX5 | 162.450MHz | WX11 | 162.000MHz |
| WX6 | 162.500MHz | | |

NOAA function is available for the USA and Canada based on the need.

Listen to NOAA channels ( detailed information follows the NOAA channel and frequency list).

When receiving the NOAA channels, the radio can't scan or transmit.

NOAA and the Canadian environment sector have transmitters and spread all over the USA and Canada. The transmitter broadcasts in 24 hours, and forecasts weather and other information.

a.　Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Weather.

b.　Press the [**MENU**] key to enter the next-level menu.

c.　Press the [▲] or [▼] key to choose the needed NOAA 01-11 channels.

d.　Press the [**MENU**] key to confirm and save.


**14. Weather Warn**

The radio can be set to respond to the NOAA weather broadcast emergencies. The radio will send a special alarm sound and turn on the NOAA to offer instant weather and emergency information. Setting is optional OFF or ON.

a.　Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Weather Warn.

b.　Press the [**MENU**] key to enter the next-level menu.

c.　Press the [▲] or [▼] key to choose the needed OFF or ON.

d.　Press the [**MENU**] key to confirm and save.


**15. Roger**

After turning on, release the [**PTT**] key, the radio sends a beep sound.

a.　Press the [**MENU**] key to enter the menu, and press the [▲] or [▼] key to choose Roger.

b.　Press the [**MENU**] key to enter the next-level menu.

c.　Press the [▲] or [▼] key to choose the needed OFF or ON.

d.　Press the [**MENU**] key to confirm and save.


**Cancel CTCSS/DCS**

In the power-off status, long press the alarm key and turn on the radio. When hearing a beep sound, the CTCSS/DCS is turned off (All channels CTCSS/DCS turn OFF). Repeat the operation and hear two beep sounds, CTCSS/DCS is turned on (all channels CTCSS/DCS).

**Easy Pairing**

1.  **Long** Press the PF2 key of the receiver and turn on the radio simultaneously. The indicator flashes green and three beep sounds are heard, and the radio enters the receiving mode.
2.  **Long** Press the **PF1** key of the transmitter and turn on the radio simultaneously. The indicator flashes red and three beep sounds are heard, and the radio enters the transmitting mode.
3.  Press the PTT key of the transmitter. The indicator flashes red, the radio is transmitting data. Turn on the radio again to exit the mode.
4.  The indicator of the receiver flashes green, the radio is receiving the data. After finishing receiving it, the radio will **restart**.

This function helps various TC328S radios to communicate directly without using the CPS.

How to cancel the password after setting the programming password?
Input the password when programming, don't need to input the new password and check. Click the writing, the programming password will be deleted after programming successfully.

Write Data To InterPhone                                    ✕

PassWord  123
New PassWord  [        ]  ☑
Write        Close

**Frequency List**

| Channel | RX Frequency | TX Frequency | Max Power Output | Channel | RX Frequency | TX Frequency | Max Power Output |
|---------|--------------|--------------|------------------|---------|--------------|--------------|------------------|
| 1 | 462.5625 | 462.5625 | 5W/0.5W | 16 | 462.5750 | 462.5750 | 5W/0.5W |
| 2 | 462.5875 | 462.5875 | 5W/0.5W | 17 | 462.6000 | 462.6000 | 5W/0.5W |
| 3 | 462.6125 | 462.6125 | 5W/0.5W | 18 | 462.6250 | 462.6250 | 5W/0.5W |
| 4 | 462.6375 | 462.6375 | 5W/0.5W | 19 | 462.6500 | 462.6500 | 5W/0.5W |
| 5 | 462.6625 | 462.6625 | 5W/0.5W | 20 | 462.6750 | 462.6750 | 5W/0.5W |
| 6 | 462.6875 | 462.6875 | 5W/0.5W | 21 | 462.7000 | 462.7000 | 5W/0.5W |
| 7 | 462.7125 | 462.7125 | 5W/0.5W | 22 | 462.7250 | 462.7250 | 5W/0.5W |
| 8 | 467.5625 | 462.5625 | 0.5W | 23 | 467.5500 | 467.5500 | 5W/0.5W |
| 9 | 467.5875 | 467.5875 | 0.5W | 24 | 467.5750 | 467.5750 | 5W/0.5W |
| 10 | 467.6125 | 467.6125 | 0.5W | 25 | 467.6000 | 467.6000 | 5W/0.5W |
| 11 | 467.6375 | 467.6375 | 0.5W | 26 | 467.6250 | 467.6250 | 5W/0.5W |
| 12 | 467.6625 | 467.6625 | 0.5W | 27 | 467.6500 | 467.6500 | 5W/0.5W |
| 13 | 467.6875 | 467.6875 | 0.5W | 28 | 467.6750 | 467.6750 | 5W/0.5W |
| 14 | 467.7125 | 467.7125 | 0.5W | 29 | 467.7000 | 467.7000 | 5W/0.5W |
| 15 | 462.5500 | 462.5500 | 5W/0.5W | 30 | 467.7250 | 467.7250 | 5W/0.5W |

## 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 |
| 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 | D155N | 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 |

| Number | DCS-I | Number | DCS-I | Number | DCS-I | Number | DCS-I | Number | DCS-I |
|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| 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 | D155I | 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 |

**Specifications**

| General | |
|---------|---|
| Frequency Range | GMRS |
| Memory Channels | 30 |
| Channel Bandwidth | 12.5KHz/20kHz |
| Audio Distortion | ≤5% |
| Frequency Stability | ±2.5ppm |
| Max Frequency Shift | ≤5KHz/≤2.5KHz |
| Spurious Emission | ≤7uW |
| Modulation Method | FM |
| Receive Sensitivity | ≤0.25uV/≤0.3uV |
| Squelch Sensitivity | ≤0.2uV/≤0.25uV |
| Adjacent Channel Selectivity | ≥65dB |
| Spurious Response Suppress | ≥55dB |

| Intermodulation | ≥60dB |
|---|---|
| Current | ≤2.5mA |
| Work Voltage | 7.4V DC |

For Antenna:
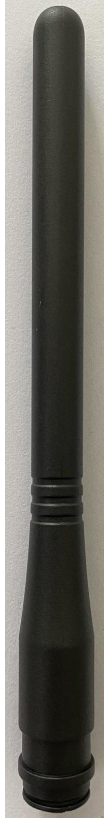


Accord to that antenna length in different regions, only below type antenna was authorized use in the product.

Antenna Model: TC328S

Antenna Type: Whip antenna

Antenna Gain: 2.15dBi

**1. RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE**

**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.**

## 2. 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.

## 3 Radio License

This two-way radio is a GMRS station. A valid individual license is required to operate a GMRS station. To obtain an individual license, an applicant must be eligible and follow the applicable rules and procedures established by FCC. The applicant must pay the required application and regulatory fees. Each individual license in the GMRS will normally have a term of ten years from the date of grant or renewal, and may be renewed pursuant to the procedures of FCC. To obtain a GMRS operator license, you need FCC Form 605 & 159, we suggest visiting the FCC website at https://www.fcc.gov/wireless/support/fcc-form-605, which includes necessary instructions. More questions about the license application, please contact the FCC at 1-888-225-5322 or go to the FCC's website:   http://www.fcc.gov.

Note: According to FCC rules, any individual who holds an individual GMRS license may allow his or her immediate family members to operate his or her GMRS station or stations. Immediate family members are the licensee's spouse, children, grandchildren, stepchildren, parents, grandparents, stepparents, brothers, sisters, aunts, uncles, nieces, nephews, and in-laws.

## 3.1 FCC

3.1.1 EN：This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference. **(Licensed radios are applicable);**

3.1.2 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: **(Other devices are applicable)**
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

3.2 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.

## 6.1 Disposal



The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, or 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.

## 7.1 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/

Transmit no more than the rated duty factor 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. For users who wish to further reduce their exposure, some effective measures to reduce RF exposure include:

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

➢    Use a speakerphone, earpiece, headset, or other 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.

## 7.3

This radio is designed for and classified as "General population/uncontrolled use". General population/uncontrolled environments are defined as locations where there is exposure of individuals who have no knowledge or control of RF exposure level.

## 7.4 Hand-held Mode



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

-To receive calls, release the PTT button.

-To transmit (talk), press the Push-to-Talk (PTT) button in front of the face.

-Hold the radio in a vertical position with the microphone (and other parts of the radio including the antenna) at least one inch (2.5 centimeters) away from the nose or lips.

## 8.1 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 healthcare facilities.

## 8.2

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 the 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.

## 9.1

**WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE**

**SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.**

## 10.1 Turn off your radio in the following conditions:

•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″.

Note: the areas with potentially explosive atmosphere referred to above include blasting caps, blasting areas, 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.

## 10.2 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.

• Do not place a portable radio in the area over an air bag or in the airbag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the airbag inflates.

## 11.1 Protect your hearing

- Use the lowest volume necessary to do your job. Turn up the volume only if you are in noisy surroundings.

- 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 carefully with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.

CAUTION: 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.

## 12.1 Batteries Safety

•WARNING: KEEP NEW OR OLD USED BATTERIES OUT OF REACH OF CHILDREN.

## 12.2

•Since batteries are sensitive to high temperatures when storing them, keep them in a cool and dry place. The recommended temperature should be between +10 ℃ and +25℃ and never exceed +30℃. Batteries should therefore not be stored next to radiators or boilers nor in direct sunlight. Extremes of humidity (below 35% and above 95% relative humidity for sustained periods should be avoided since they are detrimental to both batteries and packing. Although the storage life of batteries at room temperature is good, storage is improved at lower temperatures provided special precautions are taken. Also, accelerated warming is harmful.

## 12.3



•Turn off your radio before removing or installing a battery. Store spare batteries securely. Dispose of used batteries immediately and safely.

•The battery supply terminals are not to be short-circuit.

•Do not replace the battery in any area labeled ″Hazardous Atmosphere″. Any sparks created in a potentially explosive atmosphere can cause explosion or fire.

•When the conductive material such as jewelry, keys or chains touches exposed terminals of the batteries, may complete an electrical circuit (short circuit the battery) and become hot to cause bodily injury such as burns. Exercise care in handling any battery, particularly when placing it inside a pocket, purse or other container with metal objects;

•Dirty battery contacts need to be wiped with clean dry cloth, both on the battery and in the appliance.

•Batteries should be removed from the appliance when not being used for long periods of time (months). The batteries should be enclosed in special protective packaging (such as sealed plastic bags or variants) which should be retained to protect them from condensation during the time they are warming to ambient temperature.

•Exhausted batteries are to be removed from the equipment.

•Do not dismantle, open or shred batteries. Batteries should be dismantled only by trained people.

•Rechargeable batteries are only to be charged by adults or by children at least 8 years old under adult supervision.

## 13.1

WARINING:CHOKING HAZARD-Small Parts. Not suitable for children under 3 years old.

## 14.1

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

## 15.1 Authorized Accessories List

Power adapter：C9034

•Contact Retevis for assistance regarding repairs and service.

•For a list of Retevis-approved accessories for your radio model, visit the website: http://www.Retevis.com