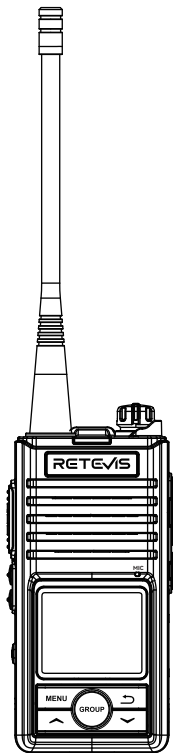


RETEVIS



RB58 **Two Way Radio** **USER'S MANUAL**

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For downloading further resources:
Brochures, Software/Firmware, Manual etc, Pls contact
your direct reseller first OR go to website retevis.com and
check "support" in the each product link to download it.

Main Features

Scrambler	Lone worker	Talkaround/Reverse frequency	Customized channel name
Data transfer	Roger beep	Two-way noise reduction	Chinese/English language choice
Group call	Battery save	Bluetooth function	AI VOX function
Single/Dual watch	Scan	Bluetooth APP	NOAA
Multi-alarm mode	Auto power-off	Voice broadcast	Memory/Channel/ Frequency mode switch

❖ To Customers

❖ Out-of-box Check

Open the package box and check the radio and listed accessories in the box before use. Contact the deliverer or dealer immediately if any item is lost or damaged during delivery.

➤ Package Includes

Item	Quantity
Radio	1
Antenna	1
Battery	1
Type-C charging cable	1
Belt clip	1
Hand strap	1
User manual	1

❖ Battery Information

❖ Charging Attention

Charge the new or long-term unused Li-ion battery before use. Charge or discharge twice or three times circle, and the battery will reach the best performance. Charge or replace the battery when the battery is at a low battery level.

➤ **Applicable Battery Type**

Use the battery matched by our company. Using other batteries may cause explosives to make the body hurt.

Attention:

1. Don't throw the short-circuit battery terminal or the battery away into the fire. Don't disassemble the battery shell by yourself.
2. Charging temperature should be between 0°C to 40°C. Beyond the temperature, it will affect the correct charging.
3. Turn off the radio when charging. If the battery is used when charging, it will affect correct charging.
4. Don't plug the power or cable to avoid interference during charging. A battery should be charged for less than 6 hours to reduce the fire risk. Disconnect the charger from the line voltage (AC outlet) by removing the main plug even if the battery is not completely charged.
5. If the use time decreases even when the charging is full, the battery life reaches the end. Replace with the new battery.
6. Don't pull off the battery and plug again to charge if it has fully charged. Otherwise, it will shorten or damage the service life of the battery.
7. Don't charge when the battery or the radio is wet. To reduce the danger, use the cloth to wipe it dry before charging.

➤ **Warning:**

The batteries will cause damage to the items or hurt the body when the conductive metal such as jewelry, keys, or jewelry chains touch the electrodes. The conductive metal will form a short-circuit and generate a large heat. Please pay more attention when handling any battery, especially when putting it into a container, such as a pocket, bag, or other metal.

- ❖ Type-c charging is as follows
- ❖ Plug the radio with the battery into the charging base.
- ❖ Make sure that the battery and charging contact connect performance, the charging indicator lights up red. The radio displays the  red icon, and charging starts. Type-C charging, plug the Type-C charging port into the Type-C charging port on the right side of the radio. When the radio displays the , charging starts. When the radio displays the , charging is completed.

- ❖ Charging time is about 5–6 hours. When the charging base indicator lights up green, and the radio displays  green icon, charging is completed.

Note: Turn off the radio and don't use the radio when charging.

❖ Keep and Clean

- ◆ Don't hold the antenna or external speaker directly.
- ◆ Use a smooth cloth to wipe the dust and stains, avoiding poor performance.
- ◆ Cover the earpiece port when the radio is not in use.
- ◆ Keys, control knobs and radio shell will be dirty after long-term use. Use the neutral detergent (do not use strong corrosive chemicals) and a warm cloth to clean.

❖ Accessories Installment

➤ Install/Remove the Battery

When installing the battery, plug the battery's top two ports into the radio's top two notches, then push the battery up. When hearing a click sound, the battery is installed.

When removing the battery, turn off the radio, pull the battery lock-port from the bottom down, then pull the battery down, and the battery is removed.

➤ Install/Remove the Antenna

Hold the antenna bottom, clockwise rotate the antenna into the top antenna connector until tightly. When removing the antenna, clockwise rotate the antenna.

➤ Install/Remove Belt Clip

If necessary, lock the equipped belt clip to the screw pole of the battery back, easy to carry. If remove the belt clip, remove the screw.

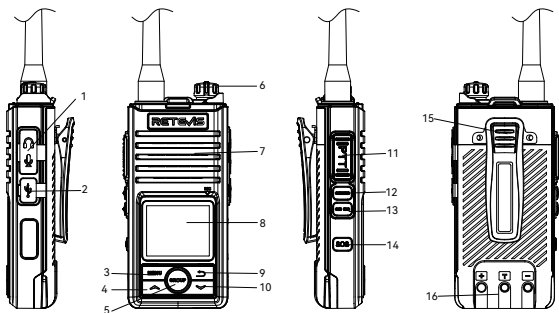
➤ Install Radio Hand Strap

Through the radio hand strap to the middle hole of the radio.

➤ Install External Speaker Microphone/Earpiece

Open the earpiece port, and plug the speaker microphone/earpiece into the port.

Familiar with Radio



1.SP/Mic

2.Type-C charging port

3.Menu button

4.Up key/Channel +

5.Group call button

6.Volume/Power knob

7.Speaker

8.LCD display

9.Exit button

10.Down key/Channel -

11.PTT key

12.Side key 1

13.Side key 2

14.SOS

15.Belt clip

16.Desktop charging port

Key Functions

【PTT】 Key (Transmit)

Transmit and receive switch key: Press the key to transmit and speak towards the microphone. Release the key to receive.

SK1 Key

Default: Short press: A/B band switch; Long press: Monitor

Optional settings: OFF, Power switch, Monitor, Scan, VOX, Talkaround/Reverse frequency, A/B band switch, NOAA.

SK2 Key

Default: Short press: Scan; Long press: Remote alarm

Optional settings: OFF, Power switch, Monitor, Scan, VOX, Talkaround/Reverse frequency, A/B band switch, NOAA.

MENU Menu Key

Short press: menu key on the standby, confirm key in the menu.

Exit Key

Long press: Frequency and channel mode switch on the standby.

Up key/Channel +

Shortly press the key to switch the channel or frequency up on the standby. Choose the function up in the menu.

Down key/Channel -

Shortly press the key to switch the channel or frequency down in the standby. Choose the function down in the menu.

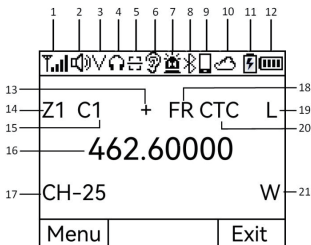
GROUP Key

Press the key on the standby, the radio transmits from the group channel.

SOS Key

Long press the key to turn on the alarm. Shortly press the key to cancel.

Standby Interface



No	Instruction
1	Signal
2	Speaker
3	VOX
4	Earpiece
5	Scan
6	Monitor
7	Alarm
8	Bluetooth connection, connection displays blue, disconnection displays black.
9	Bluetooth and phone connect icon, connection displays blue, disconnection displays black.
10	NOAA weather icon
11	Charging icon, charging displays red, charged displays green.
12	Battery power icon
13	Frequency differences indicate: +: Transmit frequency more than receive -: Transmit frequency less than receive
14	Zone number: Zx: X zone in the zone list ALL : All channels
15	Channel numbers in the zone
16	Channel information display (frequency, channel number, channel name)
17	Channel Number
18	Talkaround/Reverse frequency: TA\FR "FR": Reverse Frequency "TA": Talkaround
19	TX power: LH "L": Low "H": High
20	Sub-tone type: CTC\DCS\DCSI

21	Wideband/Narrowband: W\N “W”: Wide “N”: Narrow
----	--

Menu Instructions

First menu	Secondary menu	Thirdly-level menu	Instruction
Main Set	Display Mode	/	Frequency, name, channel number
	Squelch	/	Level 0, squelch always on
	Band	/	Single/dual watch setting, frequency band switch
	Back Light Level	/	1-15 level
	Back Light Time	/	Always, 5s, 10s, 15s, 20s, 25s, 30s, 1min, 2min, 3min, 4min, 5min, 15min, 30min, 45min, 1h
	Call Light	/	Call in light ON/OFF
	Noise Reduction	/	Noise reduction ON/OFF
	Key Function	/	PTT key lock, side key function customization setting
	Audio	/	TX tone, key beep, roger beep, voice broadcast, Mic gain setting
	VOX Switch	/	VOX ON/OFF
	VOX Delay	/	500ms, 1s, 1.5s, 2s
	VOX Level	/	1~9 level
	Power Save	/	Battery save setting
	Menu Timeout	/	Auto exit menu time setting
	Single Tone	/	1000Hz, 1450 Hz, 1750 Hz, 2100 Hz
	Work Alone Time	/	OFF, 5min, 10min...55min, 60min
	TOT Again Time	/	OFF, 5s, 10s, 15s, 20s, 25s, 30s
	All CTCDC Switch	/	CTCSS/DCS/DCSI ON/OFF
	Frequency Step	/	2.5kHz, 5kHz, 6.25kHz, 10 kHz, 12.5 kHz, 25 kHz, 50 kHz

	Radio Information	/	Radio information
Zone	All Channels	Select Zone	Level 0, squelch always on
	Zone_XXX	Select Zone	
		Edit Channel	
		Delete Zone	
	+Add Zone+	/	
Channel	Channel Info	/	
	Bandwidth	/	Wideband 25KHz, Narrowband 12.5KHz
	C-CDC	/	0FF, 1~50 Standard CTCSS, 51~155 Standard DCS, 260 Standard DCS; 261~266 6 Customized CTCSS/DCS 267~272 6 Customized DCS
	R-CDC	/	
	T-CDC	/	
	TX Power	/	High, low
	TX OutTime	/	Infinite, 5~300s
	TX Permit	/	Always Allow, CTC/DCS Mismatching, Channel Free, Receive Only
	Talkaround & Reversal	/	Talk Around、Reversal、Close
Scan	Channel Scan Set	Scan Condition	Scan condition: carrier, CTCSS/DCS (set carrier, can't match CTCSS/DCS)
		Scan Mode	Scan mode: Carrier, Time, Search
		TX Mode Set	TX mode setting: Selected, Last Active Channel, Designated Channel
		Designated Channel	Specific channel choice, TX mode is used for Designated channel
		Priority Channel 1	Priority scan channel 1 setting
		Priority Channel 2	Priority scan channel 2 setting
		Channel List	Scan list display
		Hang time	1~16s

	VFO Scan Set	Start Condition	Current frequency, start frequency
		Scan Condition	Scan condition: carrier, CTCSS/DCS (set carrier, can't match CTCSS/DCS)
		Scan Mode	Scan mode: Carrier, Time, Search
		Hang time	1~16s
		START Frequency	
		STOP Frequency	
Emergency	Alarm Channel Type	/	Alarm transmit channel choice: current channel, designated channel, group call channel
	Alarm Mode	/	Alarm modes: local alarm, remote alarm
	Designated Channel	/	Designated alarm channel choice: valid when choosing the alarm transmit channel type as the designated channel
Weather	Weather Alarm	/	/
	NOAA Channel List	/	CH01-CH12
Bluetooth	BT Power	/	/
	BT Call	BT Earphone	EAR Scan
			EAR Scan list
			EAR Paired Device
			EAR Disconnect
		BT APP Talk	/
	BT SPK Gain		
	BT MIC Gain		/

Radio Clon	CLON_TX	Whole machine clon	/
		Basic set Clon	/
		Channel Clon	/
		Basic set & Channel	/
	CLON_RX	/	/
Factory Reset	/	/	/

Functions

1.Talkaround, Reverse Frequency

The transmit frequency is the same as the receive frequency when using the Talkaround function. The transmit signaling will be the same as the receive signaling.

2.1-tone Signaling

Transmit method: Press the PTT or Group key to enter the transmission status in the standby. Press the Side key 1 or Side key 2 to transmit the corresponding 1-tone signaling. Release the Side key 1 or Side key 2 to restore the voice transmission.

3.Group Call

Press the Group key to transmit from the group call channel in the standby. Group call channels can be set through the CPS.

4.Local Alarm

Only the radio sends the alarm sound. Long press the SOS key to turn on the alarm, and short press to cancel.

5.Remote Alarm

The radio sends the alarm sound, and the set channel sends the sound to others. Long press the SOS key to turn on the alarm, and short press to turn off.

6.Lone Worker

Don't operate the radio in the set time, the radio sends the alarm cancellation prompt and rings for 15s. The radio will automatically enter alarm mode after 15s. It can be set through the menu and CPS.

7.VOX ON/OFF

After the function is activated, transmit through the voice sound without pressing the PTT key. VOX can set various levels. The higher the VOX level, the lower the needed voice level. VOX levels can be set: 1-9, default, 5. VOX delay can be set: 500-2000ms, default: 1000.

8.Auto VOX ON

- a)VOX turns on automatically when plugging the earpiece. Cancel the VOX function automatically when pressing the PTT to transmit.
- b)The VOX function restores the previous status when pulling the earpiece.

9.SQL

Squelch level can be set: 0-9, default: 4. Level 0 is always on.

10.Two-way Noise Reduction

Filter out the background noise and retain the human voice sound through the noise reduction chip. Transmit and receive both noise reduction.

11.Allow TX Prompt

Allow communication prompt, press the PTT key and a prompt will be heard. Talk after the prompt.

12.Roger Beep

Roger beep is that the other will receive a prompt to prove the transmission has finished after transmitting.

13.Voice Broadcast

The corresponding voice broadcast prompt will be sent when opening the key operations.

14.Mic Gain

Adjust the mic gain to increase or decrease the radio mic sensitivity. It is sent sensitivity.

15.Battery Save Level

To reduce the battery power consumption and extend the standby time, the radio will work as the a period of sleep and a period of work, if there are no operations at a certain period. It can be set: OFF, 1:1, 1:2, and 1:4, default: 1:4.

16.Battery Save Delay Time

TEnter the delay time of the battery save mode if no operations. It can be set: 5s, 10s, 15s, 20s, 25s, 30s, 1min, 3min, 5min, 10min, 15min, 20min, 25min, and 30min. Default: 5s.

17.TOT Delay Time

Transmit over the time, allow transmission again delay time. It can be set: OFF, 5s, 10s, 15s, 20s, 25s, and 30s. Default: OFF.

18.All CTCSS/DCS ON/OFF

Set to turn on or off all CTCSS/DCS. All channel CTCSS/DCS are invalid when turning off all CTCSS/DCS. Channels restore the original CTCSS/DCS status when turning on all CTCSS/DCS.

19.Earpiece Key Lock

Lock the radio PTT key when using the radio with the earpiece. Turn on or off through the CPS. Default: OFF.

20.Side Key Customization

SK1 short press, SK1 long press, SK2 short press, SK2 long press, can be set: OFF, Power switch, Monitor, Scan, VOX, Talkaround/Reverse frequency, A/B band switch

21.Monitor

Set the side key as the monitor in the menu or CPS setting. Press the defined monitor key in the standby, the monitor icon lights, and the radio monitors the main channel.

22.Low Battery Alert

When the battery is too low, the radio will send a low battery prompt. If the voice broadcast is turned on, the prompt will sent by voice.

23.Scrambler

When the battery is too low, the radio will send a low battery prompt. If the voice broadcast is turned on, the prompt will sent by voice.

24.Scan

Set the side key as the scan in the menu or CPS setting. Press the defined scan key in the standby, the scan icon lights, and the radio turns on the main channel scan. The scan function can be set through the menu and CPS.

25.Data Shift

Support channel data, setting data, or the radio data shift. Check the battery power whether is sufficient before the data shift. Don't operate the radio when shifting the data. Only support one-to-one data shifts. The operation step is as follows:

Receiver:

- Press the **MENU** key to enter the menu interface, press the  key or  key to choose Radio Clon, and press the **MENU** key to enter the next-level menu.
- Press the  key or  key to choose Clon-RX.
- Press the **MENU** key to confirm and enter the data shift receiving mode.

Transmitter:

- Press the **MENU** key to enter the menu interface, press the  key or  key

key to choose the Radio Clon, and press the **MENU** key to enter the next-level menu.

e.Press the  key or  key to choose the Clon-RX, and press the **MENU** key to enter the next-level menu.

f.Press the  key or  key to choose data transfer range.

g.Press the **MENU** key to confirm and enter the data shift transmitting mode.

h.The receiver will restart without receiving the data in 30s.

i.The transmitter will restart without the receiver's reply in 30s

26.Reset Factory Setting

Confirm after 3 times to enter the reset factory confirmation. Reset the factory setting and restart after confirming. Cancel anytime before the factory reset. All radio information is reset to the factory setting.

27.Channel Number

The radio is up to 256 channels, add, delete, and edit through the CPS.

28.CTCSS/DCS

In addition to the known CTCSS/DCS, support 6 customized CTCSS and DCS. Customized CTCSS/DCS through the CPS.

C-CDC: Set the RX and TX CTCSS/DCS simultaneously

R-CDC: Only set the RX CTCSS/DCS.

T-CDC: Only set the TX CTCSS/DCS.

29.Beep Deletion

Set through the CPS. Default: ON.

30.NOAA

Weather alert ON/OFF

Weather alert channel choice

Turn on the NOAA channel monitor in the NOAA Channel List menu. Switch the monitored channel up and down.

31.Bluetooth ON/OFF

a.Press the **MENU** key to enter the menu, and press the **MENU** key or  key to choose Bluetooth. Press the **MENU** key to enter the next-level menu.

b.Press the **MENU** key or  key to choose BT Power, and press the **MENU** key to enter the next-level menu.

c.Press the **MENU** key or  key to choose BT Power ON or OFF.

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

32.Bluetooth Headset Pairing

The Bluetooth headset enters the pairing mode first. Operate the menu to turn on the Bluetooth headset scan when connecting the Bluetooth headset.

- a. Press the **MENU** key to enter the menu, and press the **MENU** key or  key to choose Bluetooth. Press the **MENU** key to enter the next-level menu.
- b. Press the **MENU** key or  key to choose BT Earphone, and press the **MENU** key to enter the next-level menu.
- c. Press the **MENU** key or  key to choose Ear Scan, and press the **MENU** key to enter the next-level menu.
- d. Press the **MENU** key to confirm, the radio enters the Bluetooth earphone scan list. The radio will turn to the Ear Scan List after scanning successfully. If not, scan again.
- e. Enter the Ear Scan List, press the **MENU** or  key to choose the Bluetooth device, and press the **MENU** key to pair and connect.
- f. After a successful connection, the Bluetooth headset icon becomes blue.

33.APP Connect Phone

1. Write Data

- a. Turn on the Bluetooth power.
- b. Turn on the phone APP, and click the Add Radios on the display or + in the right upper corner. Enter the next-level menu.
- c. Click the RB58/RB658 option to start scan. Choose the devices that need to connect after scanning successfully.
- d. Return to the APP home automatically after a successful connection. The phone icon turns blue.
- e. Click the device on the APP home to read the data.
- f. After APP setting successfully, the radio will restart and renew the data.

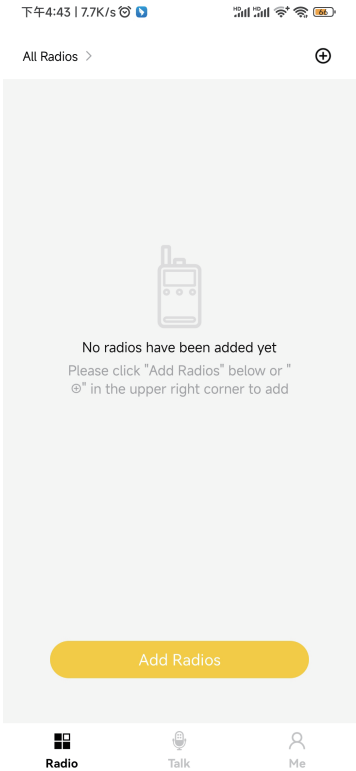
34. Mobile APP Call

- a. Turn on the Bluetooth switch.
- b. Open the RETEVIS APP, click "Add Radios" on the screen or the "+" sign in the upper - right corner; enter the next - level menu interface. Click the "RB58/RB658" option to start scanning. After the scanning is completed, select the device that needs to be connected.
- c. After a successful connection, it will automatically return to the APP's home page. At this time, the mobile phone icon in the walkie - talkie status bar turns blue.
- d. Open "BT APP Talk": enter the menu interface, select "Bluetooth", enter the next - level menu, select "BT Call", and then enter the next - level menu and select "BT APP Talk".
- e. Open the RETEVIS APP and select the "Talk" interface. It will automatically connect to the paired walkie - talkie (pay attention to check the MAC ID).
- f. At this time, in the "Talk" interface of the RETEVIS APP, click the PTT key to start the two - way call between the mobile phone and another walkie - talkie.

Note:

BT Earphone: The walkie - talkie is connected to a Bluetooth headset to

perform operations such as searching, connecting, and disconnecting Bluetooth headset devices.
BT APP Talk: User APP call, allowing the mobile APP to have a two - way call with another walkie - talkie.
These two functions cannot be used simultaneously.





Add Radios



RETEVIS RB58



RETEVIS RB658

All Radios >



RETEVIS RB58

DA:08:1B:BE:9B:10

100%

Connected

PTT



Add Radios



Radio



Talk



Me

2.Read Data

18:30

📶 📶 📶 100



Settings

Reading data...





Settings

CH-24

Wide

Low

Bandwidth

Tx Power

467.57500

Close

462.57500

Close

TX

CTCSS/DCS

RX

CTCSS/DCS



Basic Settings



Channel Settings



Configuration Files



About Radio



RETEVIS RB58 DA:08:1B:BE:9B:10 >

**CH-1****Wide****High**

Bandwidth

Tx Power

464.55000**67.0****464.55000****67.0**

TX

CTCSS

RX

CTCSS

PTT



Radio



Talk



Me

RETEVIS RB58 DA:08:1B:BE:9B:10 >



CH-1

Wide

High

Bandwidth

Tx Power

464.55000

67.0

464.55000

67.0

TX

CTCSS

RX

CTCSS



Release to stop



Radio



Talk



Me

CDS and 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	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
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	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

NO	Frequency U	CTCSS/DCS	Bandwidth	Power
1	461.11250	67	Narrow	High
2	461.13750	67	Narrow	High
3	461.16250	67	Narrow	High
4	468.56250	67	Narrow	High
5	468.61250	71.9	Narrow	High
6	468.66250	71.9	Narrow	High
7	456.33750	71.9	Narrow	High
8	456.43750	71.9	Narrow	High
9	459.60625	94.8	Narrow	High
10	448.19375	94.8	Narrow	High
11	469.36875	94.8	Narrow	High
12	449.31250	94.8	Narrow	High
13	459.12500	136.5	Narrow	High
14	444.55000	136.5	Narrow	High
15	457.17500	136.5	Narrow	High
16	442.87500	136.5	Narrow	High

*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. Frequency ranges 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.

Specifications

General	
Frequency Range	UHF: 400-470MHz
Memory Channels	256
Channel Step Value	12.5KHz
TX Power	High power: $\leq 2W$, Low power: 0.5W
Audio Distortion	$\leq 5\%$
Frequency Stability	$\pm 1KHz$
Max Frequency Deviation	$\leq 5KHz/\leq 2.5KHz$
Spurious Radiation	$\leq 7uW$
Modulation Method	FM
Receive Sensitivity	$\leq 0.25uV/\leq 0.3uV$
Squelch Sensitivity	$\leq 0.2uV/\leq 0.25uV$
Adjacent Channel Selectivity	$\geq 65dB$
Spurious Response Suppression	$\geq 70dB$
Inter-modulation	$\geq 65dB$
Transmit Current	$\leq 1.5A$
Work Voltage	3.7V DC

Fault Emission

The below list aims at helping you incorrect the problems that do not belong to the device fault. If you can't find the problem's reason or solution through the table, contact your dealer or Retevis service center. Example as follows:

Problem	Reason	Solution
The transceiver does not turn on.	The battery is exhausted.	Charge the battery pack, or replace the batteries.
	Loosen the connection of a battery pack (case).	Clean the battery terminals.
No sound comes from the speaker.	The volume level is too low.	Rotate Volume Knob to adjust the level.
	The squelch level is too high.	Adjust the squelch level.
	An external speaker is connected to the	Check the external speaker connection.
	[SP] jack.	
	The CTCSS tone is not compatible.	Disable CTCSS/DCS or be sure setting matches incoming transmission.
The keyboard is locked.	The keyboard is locked.	Check if the keypad has been locked. Check if other keys are currently pressed.
Battery life lower than expected		Be sure the charger indicates the battery is fully charged. The battery pack capacity will naturally diminish over a number of charge cycles. This is the case with all lithium batteries.
Transmitting is impossible.		Set the transmit power level to High.
	The PTT Lock function is activated.	
	The Busy Lockout function is activated.	Turn OFF the PTT Lock function on the MENU screen.
	The transmit frequency is out of the amateur radio band.	Set the transmit frequency within the amateur radio band.

RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR TWO-WAY RADIOS



ATTENTION!

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 radios 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 condition that this device does not cause harmful interference. (Licensed radios are applicable;

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.

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.

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.



Hand-held Mode

To control your exposure and ensure compliance with the controlled 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.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

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

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:

 WARNING	• 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". 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. • 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. • 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.
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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 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 taking on fuel or parked at gasoline service stations.
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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.



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

Guarantee

Model Number: _____

Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's Name: _____ Telephone: _____

Country: _____ Address: _____

Post Code: _____ Email: _____

Remarks:

- 1.This guarantee card should be kept by the user, no replacement if lost.
- 2.Most new products carry a two-year manufacturer's warranty from the date of purchase. Further details, pls read <http://www.retevis.com/after-sale/>
- 3.The user can get warranty and after-sales service as below:
 - Contact the seller where you buy.
 - Products Repaired by Our Local Repair Center
- 4.For warranty service, you will need to provide a receipt proof of purchase from the actual seller for verification

Exclusions from Warranty Coverage:

- 1.To any product damaged by accident.
- 2.In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.
- 3.If the serial number has been altered, defaced, or removed.



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Facebook: [@retevis.fans](https://www.facebook.com/retevis.fans)



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