

- Press key **FUNC** + **6XT**, Set CTCSS/DCS Transmit, show "tc OFF".

Press key **RECALL** to choose the CTCSS/DCS Transmit mode:

tc OFF:NO CTCSS/DCS

tc CT:CTCSS

tc N(!):DCS

(Press key **▲** or **▼**, choose CTCSS code or DCS code and then press **MENU** to save.)

- Press key **FUNC** + **73%**, Set the VOX grade, press key **▲** or **▼** to choose the grade from 1~9. Press **MENU** confirm and save.

LCD display as picture:

15 1:0%OFF

- Press key **FUNC** + **8REV**, use the reverse frequency function, LCD show "R", operation again to exit.

LCD display as picture:

01 400.750

- Press key **FUNC** + **9DW**, use the dual-watch operation, LCD show "DW", the radio awaits the using channel and dual-watch channel at the same time, Press **EXIT** to exit.

LCD display as picture:

01 410.050

02 420.050



Note: It needs to set the dual-watch channel first. Choose Menu 4 "DCH" as "ON", LCD shows "WX", then the dual-watch channel is set.

- Press key **[FUNC]** + **[#WARN]**, use the alarm function, LCD show "WARN", press "PTT" to exit.

LCD display as picture :



- Press key **[FUNC]** + **[F BAND]**, frequency band switch. On the mode of frequency, switch among F0、F1、F2、F3、F4.
- Press key **[0 PTT]** more than 2 seconds, keypad lock, LCD show "PTT", operation again, keypad unlock.
- Press key **[7 FREQ]** more than 2 seconds, LCD show "SEARCH", search CTCSS or DCS. LCD show the CTCSS/DCS when searched. on the mode of frequency, press key **[MENU]** to save, press key **[EXIT]** to end the search.

LCD display as picture :



➤ **The using method of menu**

1. Press key "**MENU**" into the menu mode.
2. Press key "**▲**" or "**▼**" to choose your desired menu option.
3. Then press key "**MENU**" again into menu content.
4. Press "**▲**" or "**▼**" to choose the parameter of menu option.
5. After choosing the desired parameter, Press key "**MENU**" to save and exit, Press key "**EXIT**" to exit

NO.	Feature	LOD display	Choice content
1	Channel step	<i>STP.</i>	5/6, 25/10/12, 5/15/20/25/30/50/100kHz
2	RX CTCSS/DCS	<i>RN.CODE</i>	OFF/CTCSS/DCS
3	TX CTCSS/DCS	<i>TN.CODE</i>	OFF/CTCSS/DCS
4	Dual-watch channel	<i>DCH</i>	ON/OFF
5	Squelch level shift direction	<i>SQL.</i>	0~9
6	Repeater shift direction	<i>RPT.</i>	OFF/-/+
7	Off set	<i>OFFSET</i>	Press key "#" then input 0~70.000MHz
8	Power choosing	<i>POW.</i>	HI/MI/LO
9	Time-out-Timer	<i>TOT.</i>	0~9
10	Channel spacing	<i>W/N.</i>	W(25KHz)/N(12.5KHz)
11	Keypad beep switch	<i>BEEP</i>	ON/OFF
12	Voice scrambler	<i>SCR.</i>	ON/OFF
13	Priority scan	<i>PCH</i>	ON/OFF
14	Busy channel lock	<i>BCL.</i>	ON/OFF
15	VOX	<i>VOX</i>	OFF/1~9
16	Channel display switch	<i>CH.PLAY</i>	ON/OFF
17	Delete	<i>DEL.</i>	YES/NO
18	Reset	<i>RESET</i>	VFO/FULL

▶ PC Programmable Function

This radio can be programmed by computer, the operation details see QS PC software.

▶ Frequency Mode

Press key **VFO** into frequency mode, change the frequency according channel step by pressing key **▲** or **▼**, or input the frequency directly by press key **#MEMO**.

Example: #+095500 → F0 95.5MHz
 #+150000 → F1 150.000MHz

If you want to set different frequency, it needs to set the RPT, then set the CTCSS/DCS (if necessary) and then to talk.

▶ Memory Channel Store

On the frequency mode, set the receiving frequency first, if you want to set different frequency, it needs to set the RPT, then set the CTCSS/DCS (if necessary), press key **FUNC** + **MR**, choose the storing channel by pressing key **▲** or **▼**, or input the channel number directly by press key **#MEMO**, then press key **MR** to save.

This radio can total "0~99" total 100 channels.

▶ Choose Memory Channel

Press key **MR** into channel mode, then press key **▲** or **▼** to choose the channel you need, or press key **#MEMO** to input the channel you need directly, then you can talk.



➤ Delete The Memory Channel

Press key **MR** into channel mode, choose the channel need to delete. Press key **MENU** then press **▲** or **▼** to choose menu "17", and then press **MENU** to choose "YES" (delete) or "NO" (undelete) then press key **MENU** to confirm and exit.

➤ Busy Channel Lock

The busy lock feature disables the transmitter if another signal is present; if the function open, the radio alarm by pressing PTT, shows "Busy" on the display and stop transmitting.

➤ VOX

VOX function can't switch to transmit mode manually each time. Once the vox circuit check you speak to microphone, the radio switch to transmit mode automatically.

➤ VOX PLUS

You must adjust the VOX PLUS level correctly and then can use VOX function effectly.
"OFF/1~9", "1" denote the VOX PLUS lowest, "9" denote the VOX PLUS highest.
The user needs to choose the proper level according to the environment.



➤ **Reset**

The radio has two kinds reset function, "VFO" shows frequency mode reset, press **MEMO** and then press **▲** or **▼** switch to No.18 menu, then press **MEMO** to choose "VFO", press key **MEMO** to choose "YES", "FULL" means reset completely.

➤ **Time-Out-Timer**

To avoid someone transmit without permission or transmit careless, it can be set to forbid transmitting choose from "0~9", "0" means that it can't be open this function, "1~9" means transmit 1~9 minutes.

➤ **Voice Scrambler (Optional)**

When scrambler, other radio without voice scrambler can receive the signal but can't hear the content of other two radios communication. Only communication when two radios both have chosen voice scrambler.

➤ **Cable Cloning Function**

Press the key "monitor" of master radio, turn the power on, LCD show "COPY" into cable clone, turn the power on of sub-master, connect the cloning cable, Press key "Monitor" of master radio to copy, LCD show "WAIT". The receiving indicator glitter of sub-master radio. After copying turn the power off.



➤ Scan Function

Press key "VFO" into the frequency mode, press key "VFO" more than 2 seconds, then it can scan frequency according to the channel step. It can change the scan direction by pressing "▲" or "▼", press key "EXIT" to exit, press key "MR" into channel mode, press key "MR" more than 2 seconds then it can scan channel, press key "▲" or "▼" to change the scan direction, press "EXIT" to exit.

➤ Priority Scan

When monitor other frequency need to check the priority frequency at the same time, you can use "Priority Scan" Function. Setting a priority scan channel before use this function.

Priority scan channel:

Choose Menu NO. 13 PCH as "ON", LCD show "T" when set.

Press key "FUNC" into priority scan when channel scan, LCD shows "PRI", press key "FUNC" again to exit.

➤ The announcement of no transmitting

1. If busy channel lock, LCD show "BUSY".
2. If PLL unlock, LCD show "LOST".
3. If the battery voltage higher than normal, LCD show "HIGH".
4. If the battery voltage lower than normal, LCD show "LOW".
5. If time out timer, LCD show "OVER".



CTCSS

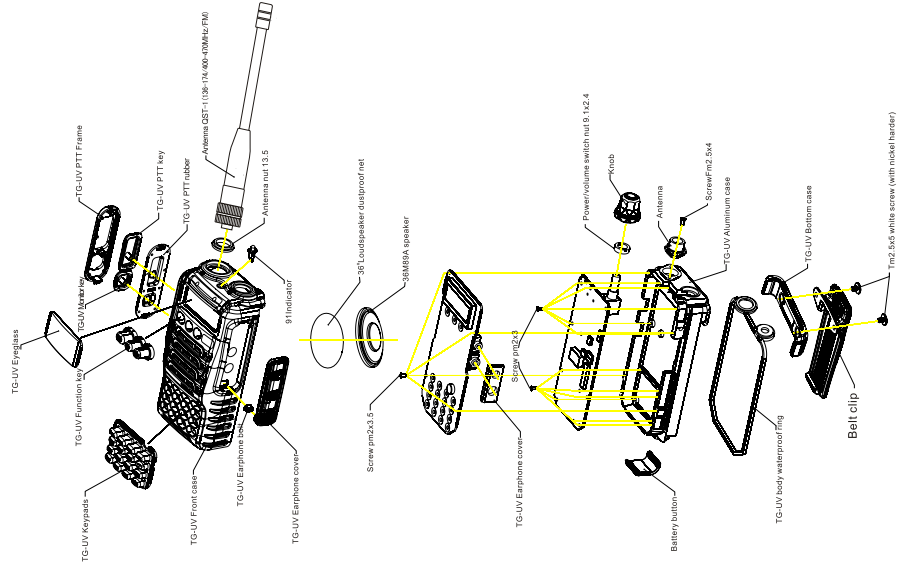
1	67.0	18	118.8	35	183.5
2	69.3	19	123.0	36	186.2
3	71.9	20	127.3	37	189.9
4	74.4	21	131.8	38	192.8
5	77.0	22	136.5	39	196.6
6	79.7	23	141.3	40	199.5
7	82.5	24	146.2	41	203.5
8	85.4	25	151.4	42	206.5
9	88.5	26	156.7	43	210.7
10	91.5	27	159.8	44	218.1
11	94.8	28	162.2	45	225.7
12	97.4	29	165.5	46	229.1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

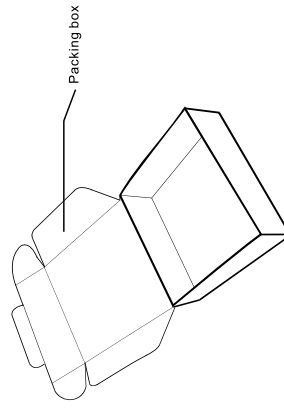
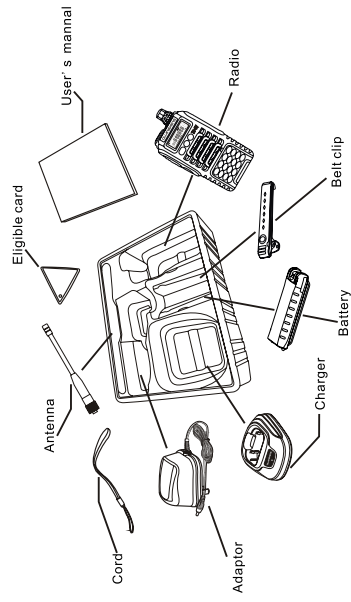
DCS

1	D023N	43	D251N	85	D532N	127	D132I	169	D411I
2	D025N	44	D252N	86	D546N	128	D134I	170	D412I
3	D026N	45	D255N	87	D565N	129	D143I	171	D413I
4	D031N	46	D261N	88	D606N	130	D145I	172	D423I
5	D032N	47	D263N	89	D612N	131	D152I	173	D431I
6	D036N	48	D265N	90	D624N	132	D155I	174	D432I
7	D043N	49	D266N	91	D627N	133	D156I	175	D445I
8	D047N	50	D271N	92	D631N	134	D162I	176	D446I
9	D051N	51	D274N	93	D632N	135	D165I	177	D452I
10	D053N	52	D306N	94	D654N	136	D172I	178	D454I
11	D054N	53	D311N	95	D662N	137	D174I	179	D455I
12	D065N	54	D315N	96	D664N	138	D205I	180	D462I
13	D071N	55	D325N	97	D703N	139	D212I	181	D464I
14	D072N	56	D331N	98	D712N	140	D223I	182	D465I
15	D073N	57	D332N	99	D723N	141	D225I	183	D466I
16	D074N	58	D343N	100	D731N	142	D226I	184	D503I
17	D114N	59	D346N	101	D732N	143	D243I	185	D506I
18	D115N	60	D351N	102	D734N	144	D144I	186	D516I
19	D116N	61	D356N	103	D743N	145	D245I	187	D523I
20	D122N	62	D364N	104	D754N	146	D246I	188	D526I
21	D125N	63	D365N	105	D023I	147	D251I	189	D532I
22	D131N	64	D371N	106	D026I	148	D252I	190	D546I
23	D132N	65	D411N	107	D026I	149	D255I	191	D565I
24	D134N	66	D412N	108	D031I	150	D261I	192	D606I
25	D143N	67	D413N	109	D032I	151	D263I	193	D612I
26	D145N	68	D423N	110	D036I	152	D265I	194	D624I
27	D152N	69	D431N	111	D043I	153	D266I	195	D627I
28	D155N	70	D432N	112	D047I	154	D271I	196	D631I
29	D156N	71	D445N	113	D051I	155	D274I	197	D632I
30	D162N	72	D446N	114	D053I	156	D306I	198	D654I
31	D165N	73	D452N	115	D054I	157	D311I	199	D662I
32	D172N	74	D454N	116	D065I	158	D315I	200	D664I
33	D174N	75	D455N	117	D071I	159	D325I	201	D703I
34	D205N	76	D462N	118	D072I	160	D331I	202	D712I
35	D212N	77	D464N	119	D073I	161	D332I	203	D723I
36	D223N	78	D465N	120	D074I	162	D343I	204	D731I
37	D225N	79	D466N	121	D114I	163	D346I	205	D732I
38	D226N	80	D503N	122	D115I	164	D351I	206	D734I
39	D243N	81	D506N	123	D116I	165	D356I	207	D743I
40	D244N	82	D516N	124	D122I	166	D364I	208	D754I
41	D245N	83	D523N	125	D125I	167	D365I		
42	D246N	84	D526N	126	D131I	168	D371I		

(The following elimination flow just for your reference)

Easy Malfunction Elimination	
Description	Solution
No Power On	<ol style="list-style-type: none"> The battery is exhausted, pls change a new battery or charge the battery Check if power switch (VR3) is put through Check if CPU (C11) 32.768MHz crystal oscillate.
No Transmitter	<ol style="list-style-type: none"> Check if the switch tube of the H/L frequency voltage BV3(Q39, Q40, Q46) change Check if the RQA009(Q26), it work Check if the cable of the speaker(SP) connect well
No Noise	<ol style="list-style-type: none"> Check if the earphone base(J5) put through Check if the speaker put through Press the key Monitor(MCN) check if BV3(C9) transmitter grade have the turn voltage around 7.5 Use oscillograph to check if audio power LM386(LC4)pin(5) magnify output
No Microphone	<ol style="list-style-type: none"> Check microphone(Mic) Check if earphone base(J4) put through Check if MC4558(C6) output
No Reception	<ol style="list-style-type: none"> Check frequency and CTCSS set Check the intermediate frequency integrate circuit TA31138F(U2) Check 459F(F4)
Monitor lose control	<ol style="list-style-type: none"> Check the squech Check if the key monitor(Mic) is locked Check if the keypad of the monitor destroy Check intermediate frequency integrate circuit TA31138F(U2)
LOST	<ol style="list-style-type: none"> Check (PLL) circuit Check 24 pin (J1) and the connect line Check and test capacitance 2UF(C290), 4UF7(C251)
No sound	<ol style="list-style-type: none"> Check if all of the frequency you set whether is the same with the other radios Check magnify Z5C5066(Q11) Check FM radio integrate circuit SC1088(U1)
No display	<ol style="list-style-type: none"> Take out of the LCD frame , clean the dirty on the zebraic strip and reasll it Check if LCD unit have broken or change the LCD unit Check the LCD drive HT1621(I C7) Check the data connect of the CPU(I C1), 3(PB6), 4(PC0), 5(PC)
Can't read or write frequency	<ol style="list-style-type: none"> Check if initial software way right Check if use the software of TG-UV Radio is connect well with the data cable Check the earphone base (J4), (J5) Check CPU(I C1)





TG-UV TESING INDICES

Test Voltage : 7. 5V

Channel frequency	Control Voltage RX ≤ 0.5V TX ≤ 0.5V	SNR	Power	Emission Current	Modulation Distortion	Modulation Deviation	DCS	CTCSS	Frequency error	Transmitter	Max volume
0-136.100		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 3.5W	≤ 1.35A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	≥ 1.7V
1-151.250		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 4W	≤ 1.35A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	
2-173.125		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 3W	≤ 1.35A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	
3-136.125								0.5~0.9KHz			
4-151.750								0.5~0.9KHz			
5-173.175								0.5~0.9KHz			
6-136.150								0.5~0.9KHz			
7-151.150								0.5~0.9KHz			
8-173.225								0.5~0.9KHz			
9-400.125		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 3.5W	≤ 1.4A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	
10-440.325		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 4W	≤ 1.4A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	
11-469.225		≥ 12dB(12dBEM) ≥ 12dB(12dBEM)	≥ 3W	≤ 1.4A	≤ 5%	4.0~4.3KHz			≤ 200Hz	≤ 0.1KHz	
12-400.150								0.5~0.9KHz			
13-440.350								0.5~0.9KHz			
14-469.250								0.5~0.9KHz			
15-400.175								0.5~0.9KHz			
16-440.375								0.5~0.9KHz			
17-469.275								0.5~0.9KHz			
18-150.125						4.0~4.3KHz					
19-440.12						4.0~4.3KHz					
20-350.100		≥ 12dB(18dBEM)									
21-519.975		≥ 12dB(20dBEM)									

Modulation Description:

1. Choose the channel to 10. Modulate frequency error. Emission Current. Emission frequency deviation input. Audio frequency 1KHz. 50mV. filter 50Hz~15KHz.
2. Channel 3, 4, 5, 6, 7, 8, 12, 13, 14, filter ≥ 300Hz.

