

10.5x14.2cm

### Notice

The purchase and use of this equipment is an act of building a radio station which shall comply with requirements on setting a radio station with the radio station certificate issued by relevant authorities. The use of the equipment shall conform to the requirement of the radio station certificate. Unauthorized setting and use of radio station, interference of radio services, uncertificated work, and other conducts against the regulations will be punished by the radio administration. Serious violations of radio law will break the 288th clause of the Criminal Law or the 28th of Security Administration Punishment Act and the offenders will be sentenced to criminal punishment such as fixed-term imprisonment of not more than three years, criminal detention, public surveillance, and/or fined, or administrative punishment such as detention by the police.

### Acknowledgements

Thank you for choosing our interphones for mobile communication. We believe that the interphone will provide convenient and reliable communication and maximize the efficiency and effectiveness. We believe that the high quality and multiple functions of this product, which is equipped with advanced technologies, will satisfy you.

## Precautions

This interphone is a well-designed product with advanced technology. The following suggestions will assist you in performing the duties of warranty and acquire a better knowledge of the security when using an interphone.

1. Please put the interphone and all accessories in places where children cannot reach.
2. Please do not take apart the interphone. Disposal of the interphone by non-professionals may result in damages.
3. Please use the accompanied battery pack and charger to avoid damaging the interphone.
4. Please use the accompanied antenna to avoid shortening the communication distance.
5. Please do not expose the interphone under sunlight for too long or put it in places with high temperature.
6. Please do not put the interphone in places with dust or moisture.
7. Please do not wash the interphone with strong chemicals, detergent, or lotion.
8. Please do not transmit before installing antenna.
9. Please shut down the interphone and contact the franchiser upon detection of peculiar smell or smoke.
10. Short circuit of battery terminals and putting the battery into fire are strictly prohibited.

### Notice

- The suggestions mentioned above apply equally to the interphone and the accessories. Please contact the franchiser immediately should any accessory do not work normally.
- We do not guarantee the security and operability of using accessories which are not manufactured or sold by us.

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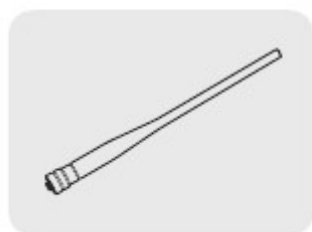
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## Unpacking and equipment inspection

Please take the interphone out of the box carefully. We suggest that you make sure that following objects are in the box before throw the wrapper away. Please contact the franchiser should any of the following objects be missing.

### Table of accompanied accessories



Antenna (1)



Battery set (1)



Back splint (1)



Charging base (1)



Certificate (1)



User Manual (1)



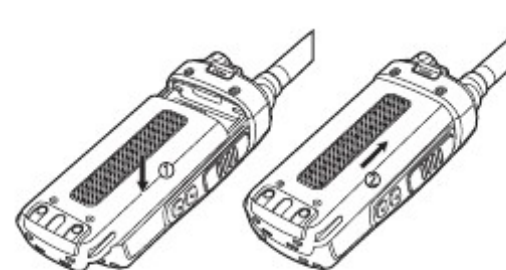
Adapter (1)

**Notice:** The battery set is not charged before leaving factory. Please charge it before use.

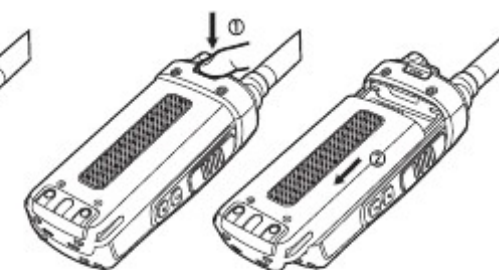
## How to use

### ■ Installing and removing the battery set

1. Align the battery set with the back of the interphone, and then boost up the battery set and the interphone until the clasp is locked (picture 1).
2. Take out the battery set, press the clasp downwards and push out the battery set (picture 2).



Picture 1



Picture 2

### ■ Instruction to the charger

Hook up the adaptor to the charging base, and connect it to 220v or 110v power supply. Put the battery into the interphone and plug in the charging base when the green light flashes, then the charger will flash for once and turn into red. The light will turn green when the battery is fully charged.



## ■ Installing the antenna

Align the antenna with the antenna head of the interphone, fix the antenna base of the interphone, and anticlockwise rotate the antenna until it is fixed.



## ■ Installing the back splint

The back splint should be mounted on the rear cover of the interphone.



# Getting familiar with the interphone

## I. Introduction to features and functions

1. Duplexing with different frequencies
2. Duplexing working mode  
Area A and B can both operate in duplex (one area transmitting and the other receiving)
3. Duplex receiving  
Able to receive while area A and B are in the same frequency or not
4. Huge color screen
5. Adaptable to working frequency of different countries and regions  
TX: 136 – 174MHz      350 – 520MHz  
RX: 76 – 108MHz(FM)    123.00 – 559.99MHz
6. Dual display  
Double-frequency display in the main screen, and two separate operating systems
7. Frequency difference and direction of frequency difference
8. Sup port relay function
9. 999 sets of memory channel
10. High-low power switching
11. QT/DQT sub-audio coding and decoding, and QT/DQT sub-audio scanning
12. VOX voice-controlled transmission
13. Side key customization function

14. Caller identification
15. Calling ID code displaying
16. DTMF coding and decoding
17. Unit calling, group calling, and selected calling
18. SOS rescue and relief
19. Prior channel scanning
20. Remote emergency alarm
21. Selectable wideband and narrowband (25KHz/12.5KHz)
22. Operational voice prompt in Chinese and English
23. Display interface in Chinese and English
25. Single-tone impulse frequency 2100Hz/1750Hz/1000Hz/1450Hz  
(used for activating relay signal)
26. Scrambling function
27. Stopwatch function
28. Frequency sweeping function

## II. Technical specifications

Entirety	
Working frequency	Adaptable to working frequency of different countries and regions 1 TX: 136–174MHz 350–520MHz 2 RX: 76–108MHz(FM) 123.00–559.99MHz
Stepping	5KHz/6.25KHz/10KHz/12.5KHz/ 25KHz/50KHz/100KHz
Channel	999
Working mode	F2D/F3E
Working temperature	–20℃ to 40 ℃
Antenna impedance	50 Ω
Voltage	7.4 VDC
Weight	280g (with battery and antenna)
Dimensions	124.5 x 64 x 37mm (without antenna)

Receiver	Wideband	Narrowband
Adjacent channel selectivity	≤ 70 dB	≤ 60dB
Inter-modulation	≤ 65dB	≤ 60 dB
Spurious response	≤ 70 dB	≤ 70 dB
Voice frequency response	+1–3dB (0.3–3KHz)	+1–3dB(0.3–2.55KHz)
SNR	≥ 45 dB	≥ 40 dB
Voice frequency distortion	≤ 5%	
Voice frequency power	≥ 1000mW	
Sensitivity	≤ 0.25μV(12dB SINAD) ≤ 0.35μV(12dB SINAD)	

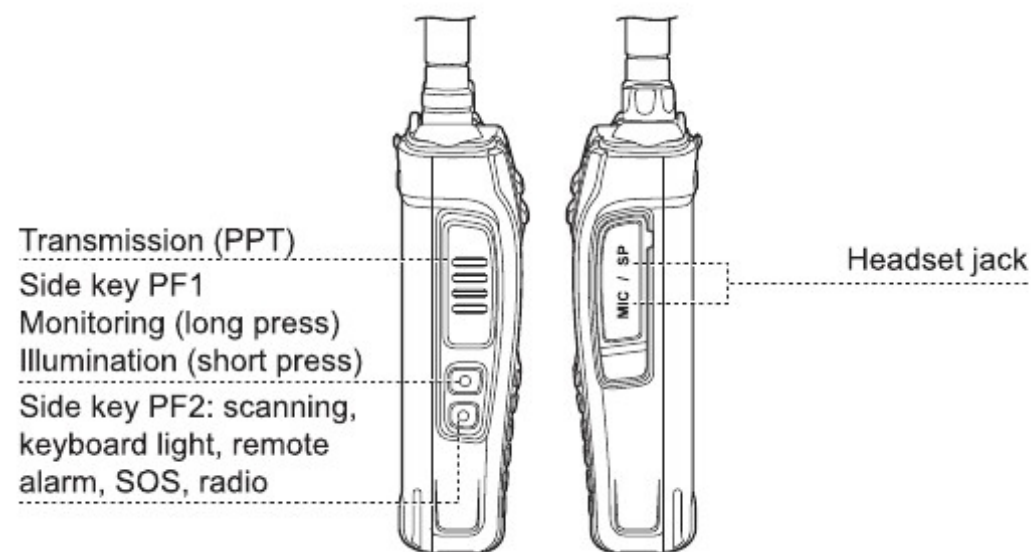
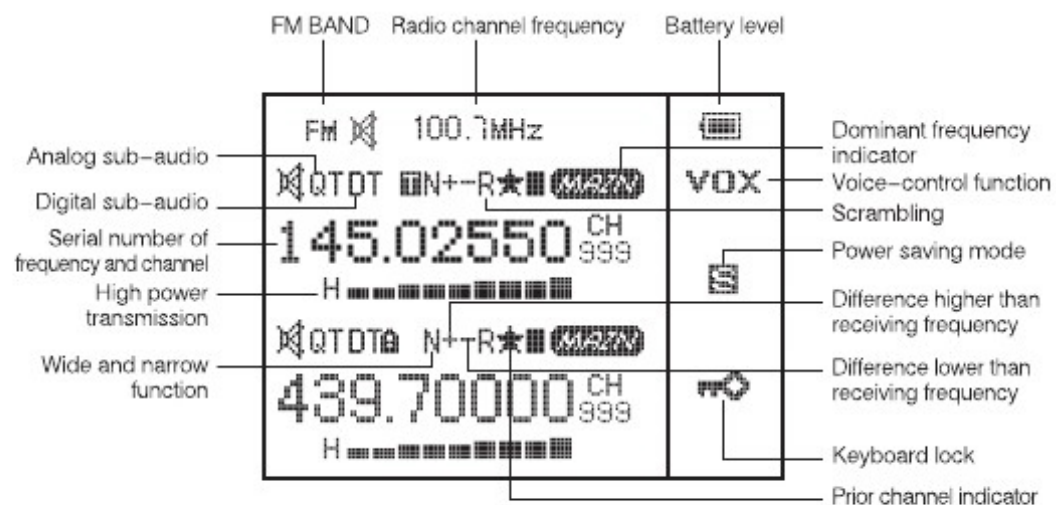


Transmitter	Wideband	Narrowband
Modulation mode	16K F3E	11K F3E
Adjacent channel power	$\geq 70\text{dB}$	$\geq 60\text{dB}$
Spurious	$\geq 60\text{dB}$	$\geq 60\text{dB}$
Voice frequency response	+1-3dB(0.3-3KHz)	+1-3dB(0.3-2.55KHz)
Maximum frequency difference	+ 5KHz@25khz	+2.5KHz@12.5KHz
Frequency stability	+ 2.5ppm	
Voice frequency distortion	$\leq 5\%$	

### III. Structural specification

Screen:

Different indexes of selected contents can be displayed on the screen.



## Basic operation

### • Power on and power off

If you need to start up, please rotate clockwise «power supply- volume switch» Turn the knob until you hear it Clicking sound. If you need to shut down, please rotate counterclockwise This knob until you hear it Clicking sound.

### • Adjust the volume

After starting up, clockwise «power supply- volume switch» The knob can increase the voice Receiving volume, Counterclockwise rotation The voice receiving volume can be reduced.

### • Frequency/Secondary Frequency Switch

Press «A/B» key, Primary/Secondary Frequency Switching, Display at the back and top of the frequency band "MAIN" The frequency band is the main frequency, No For Secondary Frequency. Press «PTT» When Frequency Emission.

### • Frequency mode(VFO)

VFO Mode yes Change Operation Frequency the basic mode. In standby under the interface, press, «VFO/MR» key Switch to VFO Mode, press «UP» / «DOWN» key rise or lower frequency.

### • Manual input frequency

In addition to press «UP» / «DOWN» key outside, also sure direct input frequency. If required frequency and current frequency are far apart, you can use a keyboard direct input frequency, press «VFO/MR» key, switch to VFO mode. Press numeric key (0) to (9) Input required the frequency. (decimal point first three for MHz, decimal point The last five for KHZ). Manual input frequency After, Hold down «PTT» key that is for the current frequency Initiate a call.

### • Keyboard lock and unlock

When you don't need to use keyboard time, lockable keyboard to prevent misoperation keyboard. Lock or unlock keyboard the operation is as follows: Standby state, long press «#» key come lock Keyboard or for Keyboard unlock.

## Frequently-used basic operations

### 1) Quick searching


Press **Up** or **Down** to set functions or functional parameters, and long press **Up** or **Down** for quick searching

### 2) Scrambling

When the scrambling function is used, the receiving frequency and the transmitting frequency will be exchanged and the coding and decoding of CTCSS and DCS will also be exchanged. The setting of scrambling function: under standby mode, press **\*SCAN** to initiate the scrambling function and press again to turn off the scrambling function.

## Function menu

### Stepping frequency – menu 1


Under standby mode, press **Menu** + **1 step**, the screen will display:  Press **Menu** to enter, press **Up** / **Down** to select the demanded stepping frequency and press **Menu** to confirm. Press **Exit** to return to standby mode.

### Attention

- This interphone has seven types of stepping frequencies, which are 5K, 6.25K, 10K, 12.5K, 25K, 50K, and 100K.

### Silencing level – menu 2

Selecting the silencing level is to choose at what signal intensity the silencing should be turned on or off. When the silencing is turned on and the signals are consistent with each other, the speaker will make a sound. Too high level of silencing may result in failure to receive when the signal is weak; too low level of silencing may result in noise to you.

Under standby mode, press **Menu** + **2 SQL**, the screen will display:  Press **Menu** to enter, press **Up** / **Down** to select the demanded level and then press **Menu** to confirm. Press **Exit** to return to standby mode. The interphone has ten levels of silencing, which are 0 – 9.


### Attention

- There are ten levels for selection (0 – 9 level), among which level 0 means that the silencing is turned off all the time. In level 1 to 9, the bigger the number, the higher the level of silencing.




### Power saving mode – menu 3


In order to reduce the consumption of battery, this function will turn off the circuit for a period of time and then turn it on for a while to detect signals.

Under standby mode, press **Menu** + **3 save**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select on/off and then press **Menu** to confirm. Press **Exit** to return to standby mode.


### Selecting the power – menu 4

Under the standby mode, press **Menu** + **4 TXP**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded level and then press **Menu** to confirm. Press **Exit** to return to standby mode.  
This interphone has two power rates: high and low.

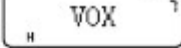
### The transmitting prompt tone – menu 5

Under the standby mode, press **Menu** + **5 ROGER**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded mode and then press **Menu** to confirm. Press **Exit** to return to standby mode.  
This interphone has 4 types of prompt tones: start, end, start + end, and shutdown.

### Transition time-out – menu 6

Under the standby mode, press **Menu** + **6 TOT**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded timer and then press **Menu** to confirm. Press **Exit** to return to standby mode.  
This interphone has 60 levels of transmission timers ranging from 15s to 900s, and every 15s makes a level.


### Voice-control transmission – menu 7

Under the standby mode, press **Menu** + **7 VOX**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded level and then press **Menu** to confirm. Press **Exit** to return to standby mode.  
This interphone has ten levels of voice control which are 1 – 10.  
OFF: voice-control is off.

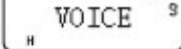
#### Attention

- Higher level of voice control requires louder sound to turn on the voice control.
- Under the scanning mode and radio mode, the voice-control function is prohibited.

### Selecting the bandwidth – menu 8

Under the standby mode, press **Menu** + **8 WN**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded type of bandwidth and then press **Menu** to confirm.  
Press **Exit** to return to standby mode.  
This interphone has two types of bandwidth: WIDE (25k) and NARR (12.5k).

### Prompt tone switch – menu 9

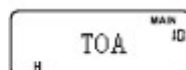
Under the standby mode, press **Menu** + **9 VOICE**, the screen will display:   
Press **Menu** to enter, press **Up** / **Down** to select the demanded prompt tone and then press **Menu** to confirm. Press **Exit** to return to standby mode.  
This interphone has two types of operation prompt tone: ON and OFF.

#### Attention

- If you need to turn off all prompt tones, you have to turn off the VOICE setting of menu 9 and BEEP setting of menu 11.

### Transmitting warning timing – menu 10

Under the standby mode, press **Menu** + **1 STEP** **0** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded timer and then press **Menu** to confirm. Press **Exit** to return to standby mode.

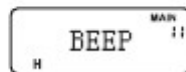
This interphone has ten levels of transmission alarm timer and every second is a level. Off: turn off the timer.

#### Attention

- When the continuous transmitting time exceeds the time set by the timer, there will be a prompt tone warning the error and the current transmission will be stopped.

### Beep switch – menu 11

Under the standby mode, press **Menu** + **1 STEP** **1** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select ON or OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

### Menu language – menu 12

Under the standby mode, press **Menu** + **1 STEP** **2** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded language and then press **Menu** to confirm. Press **Exit** to return to standby mode. This interphone has two languages: Chinese and English. The prompt tone will change according to the language chosen.

### Transmission prohibited during peak hour – menu 13

Under the standby mode, press **Menu** + **1 STEP** **3** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select ON or OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

#### Attention

- This function is prohibited when the interphone is in trans-frequency transition or relay/transmitter mode.

### Scanning mode – menu 14

Under the standby mode, press **Menu** + **1 STEP** **4** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded scanning mode and then press **Menu** to confirm. Press **Exit** to return to standby mode.

Scanning mode: search, time, and carrier.

TO: When carrier signal is scanned and there is no operation in five seconds, scanning can be continued.

CO: stop scanning when carrier signal is detected and continue to scan three seconds after the carrier signal disappears.

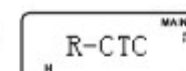
SE: stop scanning on the detection of carrier signal.

#### Attention

- Hold **\*SCAN** for 2 seconds, the scanning mode will be initiated.

### Receiving analog sub-audio – menu 15

Under the standby mode, press **Menu** + **1 STEP** **5** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded sub-audio and then press **Menu** to confirm. Press **Exit** to return to standby mode.

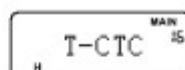
Scanning mode: search, time, and carrier.

There are 50 sets of standard analog sub-audio within the range of 67.0 – 254.1 Hz. OFF: turn off.



## Transmitting analog sub-audio – menu 16

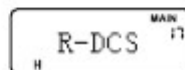
Under the standby mode, press **Menu** + **1 step** **6 TPT**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded sub-audio and then press **Menu** to confirm. Press **Exit** to return to standby mode. There are 50 sets of standard analog sub-audio within the range of 67.0 – 254.1 Hz. OFF: turn off.

## Receiving digital sub-audio – menu 17

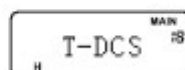
Under the standby mode, press **Menu** + **1 step** **7 vox**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded sub-audio and then press **Menu** to confirm. Press **Exit** to return to standby mode. There are 105 sets of positive code and 105 sets of negative code within the range of D023N – D754I. OFF: turn off

## Transmitting digital sub-audio – menu 18

Under the standby mode, press **Menu** + **1 step** **8 TX**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded sub-audio and then press **Menu** to confirm. Press **Exit** to return to standby mode. There are 105 sets of positive code and 105 sets of negative code within the range of D023N – D754I. OFF: turn off

### Analog (CTCSS)

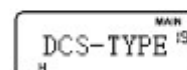
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.5	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

### Digital (DCS)

1	D023N	16	D074N	31	D166N	46	D261N	61	D356N	76	D462N	91	D627N
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N	77	D464N	92	D631N
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N	78	D465N	93	D632N
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N	79	D466N	94	D645N
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N	80	D503N	95	D654N
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N	81	D506N	96	D662N
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N	82	D516N	97	D664N
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N	83	D523N	98	D703N
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N	84	D526N	99	D712N
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N	85	D532N	100	D723N
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N	86	D546N	101	D731N
12	D066N	27	D152N	42	D246N	57	D332N	72	D446N	87	D565N	102	D732N
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N	88	D606N	103	D734N
14	D072N	29	D156N	44	D252N	59	D344N	74	D454N	89	D612N	104	D743N
15	D073N	30	D162N	45	D256N	60	D361N	75	D455N	90	D624N	105	D754N

## Type of digital sub-audio – menu 19

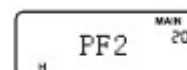
Under the standby mode, press **Menu** + **1 step** **9 voice**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter type and then press **Menu** to confirm. Press **Exit** to return to standby mode. This function includes two types of digital sub-audio: NORMAL and SPECIAL.

## Definition of side key 2 – menu 20

Under the standby mode, press **Menu** + **2 sc** **0**, the screen will display:

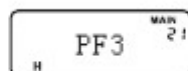


Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter type and then press **Menu** to confirm. Press **Exit** to return to standby mode.

The parameter of side key 2 includes: scanning, long lamp, SOS alarm, radio, monitoring, selected calling and turning off. The selected calling code can be edited by the software we provide.

### Definition of side key 3 – menu 21

Under the standby mode, press **Menu** + **2** **sol** **1** **stop** ,



the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter type and then press **Menu** to confirm. Press **Exit** to return to standby mode. The parameter of side key 3 includes: scanning, long lamp, SOS alarm, remote alarm, radio, monitoring, selected calling and turning off. The parameters above can realize the following functions:

#### 1. PF1 for scanning function

Press PF1 under the standby mode to enter scanning mode (scanning mode depends on the setting of menu 14) and the scanning process can be stopped by pressing any key.

#### 2. Selecting long lamp by PF1

Long hold PF1 to initiate the long lamp under the standby mode and press again to turn it off.

#### 3. Selecting SOS-CH alarm by PF1

Press PF1 under the standby mode. Two seconds later, an alarm will blare.

### Attention

- Each alarm will last for 10 seconds and the interval between two alarms is 5 minutes. Press any key to quit this function.

#### 4. Selecting remote alarm by PF1

An alarm and an alarm code will blare when PF1 is pressed under the standby mode. Press PTT to quit the alarm.

#### 5. Selecting radio by PF1

Under the standby mode, press PF1, the screen will display:



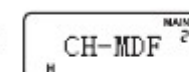
Then press **\*SCAN** to search channels. The search will stop automatically when radio is found.

### Attention

When the radio is working, the current frequency or channel is in the state of standby. It will return to interphone mode upon detection of signal. It returns to radio mode five seconds after the signal disappears. It returns to interphone mode automatically five seconds after pressing the PTT to transmit.

### Working mode – menu 22

Under the standby mode, press **Menu** + **2** **sol** **2** **sol** ,



the screen will display:  
Press **Menu** to enter, press **Up** / **Down** to select the demanded mode then press **Menu** to confirm. Press **Exit** to return to standby mode.


The working mode of interphone can be set as VFO frequency mode and MR channel mode which includes four different display modes.

- A. Channel number
- B. Frequency + channel number
- C. Channel name
- D. Frequency



## Attention




- VFO frequency mode and MR channel mode sometimes may be restricted by a password, which requires correct password to exchange them.

If there is a mode exchanging password, press , the screen will display:







Press function key to confirm after input. The modes will be exchanged when the password is correct. The password can only be set by the frequency-writing software we provide. The mode exchanging restriction will be concealed when the password is 000000.

## Backlight selection – menu 23

Under the standby mode, press  +  , the screen will display :






Press  to enter, press  to select parameter that needs to be set and then press  to confirm. Press  to return to standby mode.

Always ON: the backlight is always on.





1S – 20S: set the time that the backlight is turned off regularly.

Always OFF: the backlight is always off (this function is invalid since this interphone has color screen).

## Frequency difference selection – menu 24

Under the standby mode, press  +  , the screen will display:






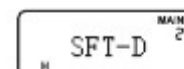
Press  to enter, press  to select the demanded frequency difference and then press  to confirm. Press  to return to standby mode.





The frequency difference is between 0 – 599.995 MHz.

The seventh and eighth digit will be automatically identified by the stepping frequency.

## The frequency difference direction – menu 25

Under the standby mode, press  +  , the screen will display:






Press  to enter, press  to select the demanded frequency difference direction and then press  to confirm. Press  to return to standby mode.


## Attention

- The frequency difference direction means:
  - a. Positive direction (+) when the transmitting frequency is higher than receiving frequency
  - b. Negative direction (-) when the transmitting frequency is lower than the receiving frequency
  - c. Turning off the frequency difference direction (OFF)




## Stopwatch switch – menu 26

Under the standby mode, press  +  , the screen will display:



Press  to enter, press  to select ON/OFF and then press  to confirm. Press  to return to standby mode.

## Attention

- The use of stopwatch  
When the stopwatch function is on, press  the stopwatch begins to count, press any key (except ) to stop the counting; press  to recount.

## Channel name edition – menu 27

The channel name edition function can only be enabled under the channel mode rather than frequency mode.

Under the standby mode, press **Menu** + **2** **SQL** **7** **VOX** ,



the screen will display:  
Press **Menu** to enter and the cursor begins to flash (means this position is being edited) Press **Up** / **Down** to select the demanded string and press **A/B** to continue the edition. Then press **Menu** to confirm.  
Press **Exit** to quit the channel name edition .

### Attention

- The length of channel name is 8 strings at most. The channel is NO-NAME when all the 8 strings are null. The channel name can be four Chinese characters by frequency-writing software.

## Channel storage – menu 28

Under the channel mode or frequency mode,



press **Menu** + **2** **SQL** **8** **MEM** , the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded channel number and then press **Menu** to confirm. Press **Exit** to quit For example, to store the receiving frequency 450.025MHz, receiving analog sub-audio 67.0Hz, and transmitting frequency 460.025 MHz to channel 10.

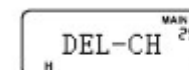
1. Input 450.025 frequency point under the frequency mode, press **Menu** + **1** **STEP** **5** **W20K** to enter the receiving sub-audio function, press **Up** / **Down** to select 67.0HZ, and **Menu** to confirm.
2. Press **Menu** + **2** **SQL** **4** **TRP** to set the frequency difference as 10.000MHz and the frequency difference direction as positive.
3. Press **Menu** + **2** **SQL** **8** **MEM** to enter the storage channel, select channel 10 and press **Menu** to confirm and return to the standby mode.

### Attention

- Under the standby mode, press **Menu** + **2** **SQL** **8** **MEM** to enter the channel storage function, input the channel number and press **Menu** to confirm. When the selected channel is null, the channel number will be displayed in blue. If the selected channel is the previously set channel, the channel number will be displayed in dark red.

## Channel deletion – menu 29

Under the standby mode, press **Menu** + **2** **SQL** **9** **VOCE** ,



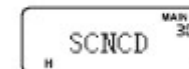
the screen will display:  
Press **Menu** to enter, press **Up** / **Down** to select the channel number that needs to be deleted or input the channel number directly and then press **Menu** to confirm. Press **Exit** to return to standby mode.

### Attention

- The first channel cannot be deleted.  
When the selected channel is null, the channel number will be displayed in blue. If the selected channel is the previously set channel, the channel number will be displayed in dark red.

## Sub-audio scanning – menu 30

Under the standby mode, press **Menu** + **3** **WVC** **0** **W** ,



the screen will display:  
Press **Menu** to enter the CTCSS scanning, which are analog sub-audio and digital sub-audio. When sub-audio frequency is detected, the detected sub-audio frequency will remain on the screen which can be saved by pressing **Menu** . If the detected sub-audio is not the one required, press **★SCAN** to continue the scanning.

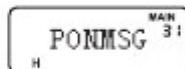


## Attention

- When the current channel or frequency does not receive the corresponding carrier signal, scanning cannot be started.

### Startup picture selection – menu 31

Under the standby mode, press **Menu** + **3 SAVE** **1 STOP**, the screen will display:



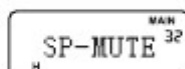
Press **Menu** to enter, press **Up** / **Down** to select the required parameter and then press **Menu** to confirm. Press **Exit** to return to standby mode.

## Attention

- Two display modes: picture and batter level.

### Silencing mode setting – menu 32

Under the standby mode, press **Menu** + **3 SAVE** **2 SEL**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the required silencing mode and then press **Menu** to confirm. Press **Exit** to return to standby mode.

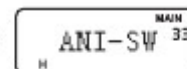
## Attention

Silencing mode is the precondition of turning on the speaker. This setting is especially suitable for selected calling and group calling. This interphone has the following silencing modes:

- QT: when set in this mode, the speaker will be turned on by the matched carrier of sub-audio
- QT+DTMF: when set in this mode, only the matched carrier signal of DTMF which meets the QT conditions can turn on the speaker.
- QT/DTMF: when set in this mode, carrier signal that meets any of the QT condition or DTMF can turn on the speaker.

### ID transmitting switch – menu 33

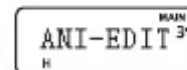
Under the standby mode, press **Menu** + **3 SAVE** **3 SAVE**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select ON/OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

### ID edition – menu 34

Under the standby mode, press **Menu** + **3 SAVE** **4 TYP**, the screen will display:

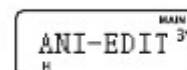


Press **Menu** to enter, input the demanded digits and then press **Menu** to confirm. Press **Exit** to return to standby mode.

The ID is made up of digits 0 – 9 and the first digit cannot be 0. The length is 3 digits at least and 6 digits at most.

Example 1: editing a 6-digit ID (123456)

Under the standby mode, press **Menu** + **3 SAVE** **4 TYP**, the screen will display:



Press **Menu** and the first digit will flash. Input **1 STOP** **2 SEL** **3 SAVE** **4 TYP** **5 ROGER** **6 TOT** and press **Menu** to confirm. Press **Exit** to return to standby mode.

## Attention

- Each interphone has only one ID. Areas A and B share the same ID.

### Side-audio setting – menu 35

Under the standby mode, press **Menu** + **3 SAVE** **5 ROGER**, the screen displays:



Press **Menu** to enter, press **Up** / **Down** to select the demanded side-audio and then press **Menu** to confirm. Press **Exit** to return to standby mode.

## Attention

ID code side-audio includes:

- DT-ST: the side-audio is on during transmission
- ANI-ST: ID code aide-audio is on during transmission
- DT=ANI: both side-audio and ID code aide-audio are on during transmission
- OFF: both are off

## Automatic keyboard lock – menu 36

Under the standby mode, press **Menu** + **3 SAVE** **6 TOT** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select ON/OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

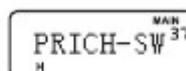
When the automatic keyboard lock is on, the keyboard will be locked if there is no operation in 15 seconds. Hold **# LOCK** for more than 2 seconds to unlock.

## Attention

Manual lock: under the standby mode, hold **# LOCK** for more than 2 seconds to lock the keyboard and hold **# LOCK** for more than 2 seconds to unlock.

## Prior channel switch – menu 37

Under the standby mode, press **Menu** + **3 SAVE** **7 VOX** , the screen will display:



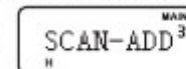
Press **Menu** to enter, press **Up** / **Down** to select ON/OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

For example, scan six normal channels CH1, CH2, CH3, CH4, CH5, and CH6, among which CH6 is the prior channel. Then the scanning process is CH1-CH6-CH2-CH6-CH3-CH6-CH4-CH6-CH5-CH6. If the interphone detects signal on prior channel, it will call out the frequency. Prior channel can be selected by our frequency-writing software.

## Channel scanning addition – menu 38

Other transition setting can be valid only when the transition function is on.

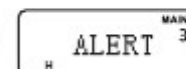
Under the standby mode, press **Menu** + **3 SAVE** **8 VO** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select ON/OFF and then press **Menu** to confirm. Press **Exit** to return to standby mode.

## Single-tone impulse frequency – menu 39

Under the standby mode, press **Menu** + **3 SAVE** **9 VOICE** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter and then press **Menu** to confirm. Press **Exit** to return to standby mode.

The frequencies are: 1000Hz, 1450Hz, 1750H, and 2100Hz.

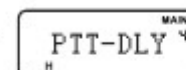
Under the transmission mode, single-tone impulse frequency can be transmitted by pressing PF1.

## Attention

In the relay system used for turning on single-tone impulse frequency, some relay needs to be initiated by a voice frequency single-impulse signal. If the relay has already been initiated, it is not needed to activate the impulse. The selectable impulse signals include 1750Hz, 2100HZ, 1000Hz, and 1450Hz.

## ID transmission delay – menu 40

Under the standby mode, press **Menu** + **4 TXP** **0** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded time and then press **Menu** to confirm. Press **Exit** to return to standby mode.

The ID transmission delay is 100-3000 millisecond, which is divided into 30 levels. Each level has 100 milliseconds.

## ID transmission mode – menu 41



Under the standby, press **Menu** + **4 TXP** **1 STOP** , the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded transmission mode and then press **Menu** to confirm. Press **Exit** to return to standby mode. This interphone has 3 ID code transmission modes: BOT, EOT, and BOTH.

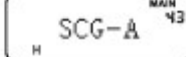
### Ringing time – menu 42

Under the standby mode, press **Menu** + **4 TSP** **2 RING**,  the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded time and then press **Menu** to confirm. Press **Exit** to return to standby mode. The ringing time is 10 seconds, which is divided into 10 levels. OFF: turned off.

### Channel scanning set A – menu 43

Scanning set means that the interphone divides the writing data channels into different groups and scans a certain group of channel by designating the group number.

Under the standby mode, press **Menu** + **4 TSP** **3 SCG-A**,  the screen will display:


Press **Up** / **Down** to select and press **Menu** to confirm. Press **Exit** to return to standby mode.

#### Attention

- Channel scanning set A can only be realized in area A.

### Channel scanning set B – menu 44

Scanning set means that the interphone divides the writing data channels into different groups and scans a certain group of channel by designating the group number interphone. Scanning set includes: all and 1-10 scanning unit.

Under the standby mode, press **Menu** + **4 TSP** **4 SCG-B**,  the screen will display:

Press **Up** / **Down** to select and press **Menu** to confirm. Press **Exit** to return to standby mode.

#### Attention

- Channel scanning set B can only be realized in area B.

### Transition receipt tone – menu 45

Under the standby mode, press **Menu** + **4 TSP** **5 RPT-TONE**,  the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter and then press **Menu** to confirm and return standby mode. ON: the receipt tone switch is on. OFF: the receipt tone switch is off.

### Scanning sub-audio storage – menu 46

Under the standby, press **Menu** + **4 TSP** **6 SC-QT**,  the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter and then press **Menu** to confirm and return standby mode.

1. Stored to transmission
2. Stored to receiving
3. All

### Sub-frequency silencing setting – menu 47

Under the standby mode, press **Menu** + **4 TSP** **7 SMUTESET**,  the screen will display:

Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter and then press **Menu** to confirm and return standby mode. OFF: turned off

## Attention

- TX: main frequency transmission, sub-frequency receiving volume off
- RX: main frequency receiving, sub-frequency receiving volume off
- TX/RX: main frequency transmission/receiving, main frequency transmission

### Selected calling code selection – menu 48

Under the standby mode, press **Menu** + **4 TX** **8 RX**, the screen will display:



Press **Menu** to enter, press **Up** / **Down** to select the demanded selected calling code and then press **Menu** to confirm and return standby mode. There are 20 groups of selected calling code for selection. Selected calling code can be edited through frequency-writing software.

### Background color – menu 49

Under the standby mode, press **Menu** + **4 TX** **9 VOICE**, the screen will display:



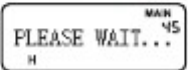
Press **Menu** to enter, press **Up** / **Down** to select the demanded color and then press **Menu** to confirm and return standby mode.

There are 6 background color s for selection: black, white, red, green, blue, and purple.

### Initialization setting – menu 50

Under the standby mode, press **Menu** + **5 VOICE** **0**, the screen will display:



Initialization function parameter (VFO): initialize all functions and recover the factory functions. However, the channel parameter cannot be initialized. Initialization function parameter (ALL): initialize all functions and the channel parameters and recover the factory functions. Under the standby mode, press **Menu** + **5 VOICE** **0**, the screen will display Press **Menu** to enter, press **Up** / **Down** to select the demanded parameter, the screen will display: , which are **Menu** initialization and all initialization.

## Detailed explanation of certain functions

### Frequency sweeping function

Detailed operation: under the standby mode, press **Menu** + **\*SCAN** function , the current frequency can be demodulated when the signal is received. If the current frequency is attached with a sub-audio, the sub-audio will show on the screen.

### Group calling, selected calling, and unit calling

This interphone can transmit personal ID code, edit personal ID code and DTMF decode. It can also realize group calling, selected calling, and unit calling without using other communication equipment. Preparatory work of using group calling, selected calling, and unit calling: ID code edition

Personal ID code: ID – XXX (3 digits) ID – XXXX (4 digits) ID – XXXXX (5 digits) ID – XXXXXX (6 digits)

Personal ID code mark + group mark (1 – 9 group, 9 groups at most) + the only ID code of the group (00000 – 99999, 1000000 pieces at most)

Note: the ID code of interphone inside the group must be unique.

### Detailed processes are as follows:

- Using group calling function  
Press PTT to transmit and press **\*SCAN** + **#LOCK** when the transmission is completed.
- Using unit calling function  
Press PTT to transmit and input group number (first digit of the receiving user's ID code + **\*SCAN** + **#LOCK**) when the transmission is completed.
- Using selected calling function  
Press PTT to transmit and input the personal ID code when the transmission is completed.



Selected calling key can be used for directly calling the selected interphone through the software we provide. Set the selected calling code the same as the personal ID code of the receiving interphone. Press selected calling key and the interphone will automatically send the ID code of your interphone + ID code of receiving interphone. For example, the ID code of receiving interphone is 123466 and the interphone selected calling number is also 123456.

## Troubleshooting

Failure	Solution
Continuous receiving indicator but the speaker makes no sound	<ul style="list-style-type: none"><li>• Make sure that volume button is set to the maximum value</li><li>• Check the setting of sub-audio</li><li>• Check the silencing mode</li></ul>
No response when pressing a key	<ul style="list-style-type: none"><li>• Whether the keyboard is locked</li><li>• Whether other keys have been stuck</li></ul>
Unable to scan	<ul style="list-style-type: none"><li>• Check the channel for scanning groups</li></ul>
Automatic transmission under standby mode without pressing PPT	<ul style="list-style-type: none"><li>• Check whether the voice-control function is on and whether the level is too low</li></ul>
Other sound in the channel (not from the members)	<ul style="list-style-type: none"><li>• Please change the frequency of sub-audio voice</li></ul>

## Warranty Card

### Remarks:

1. This warranty card only applies to the warranty service of the listed interphone above.
2. This warranty card is an important certificate for the end user to enjoy the warranty service, and please keep it properly.
3. This warranty card must be filled completely and sealed by the seller before taking effect.

Customer Name      Gender: Male/Female

Address and Post Code (Customer)

Tel.

Product Model

Serial Number

Date of Purchase

Invoice Number

Store Name      Seal of the Store

Address and Post Code (Store)

Contact (Store)

Handled by

Dear user: Hello!

Thank you very much to choose our interphone, we will do our best to provide you with stable, clear and efficient wireless communication services. In order to allow you to better enjoy our superior warranty service, please pay attention to the following information!

The warranty period of this product starts from the date of purchase. If this product breaks down under normal service condition within the warranty period, you can enjoy the warranty service in the designed authorized service stations by bringing the original warranty card and the invoice in accordance with the contents of this warranty terms (12 months of warranty for the host and 6 months of free warranty for the accessories, including battery and charger);

A warranty service for a price will be provided in the following cases during the warranty period:

- (1) Fail to show the warranty card and purchase invoice of this product;
- (2) The card is altered or inconsistent with the product;
- (3) The product is defected or damaged in unusual or unconventional conditions;
- (4) Defects or damages caused by improper use, accident, watering and negligence;
- (5) Defects or damages caused by improper testing, operation, maintenance, installation, modification or adjustment;
- (6) Defects or damages caused by the unauthorized repair and disassembly;
- (7) Defects or damages caused by the force majeure;
- (8) Wear under normal use;

If it needs to be repaired, the interphone with the warranty card and purchase invoice shall be mailed or sent to our designated authorized service stations, and the transport costs shall be borne by the user;

### Maintenance Record

Date of delivery			
Date of completion			
Fault description			
Maintenance record			
Maintainer No.			
Signature			

This warranty card should be kept properly, if you lose it, you cannot get another copy.



## Disclaimer

The Company endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and designs are subject to change without notice due to continuous technological development. No part of this manual may be copied, modified, translated, or distributed in any manner without the prior written consent of the Company.

We do not guarantee, for any particular purpose, the accuracy, validity, timeliness, legitimacy or completeness of the third-party products and contents involved in this manual. If you have any suggestions or would like to receive more information, please visit our website at: [http://www.\\*\\*\\*\\*\\*.com](http://www.*****.com).

### NOTE:

When programming the radio, start by reading the factory software data, and then rewrite this data with our frequency etc., to a new saved code plug, otherwise errors may occur.

You can use the programming cable with a PC to program the frequency, channel type, power etc. your programming must comply with your FCC (or other country) license certification.

## RF Radiation Information

This product must be restricted to operations in an occupational/controlled RF exposure environment. Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

## RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is

widely used in communication, medicine, food processing and other fields. It may generate radiation during use.

## RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
- Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1999;
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998.

## FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

## Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

- (1) RF energy will be generated only when the radio is transmitting.
- (2) The radio must be at least 2.5 centimeters away from human body when transmitting.

### **EU Regulatory Conformance**

As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC.

Please note that the above information is applicable to EU countries only.