

### **Gratitude!**

Thank you for buying **BAOJIE** BJ-UV99 FM transceiver. This dual band transceiver will bring you reliable, clear and efficient communication service. Please read this manual carefully before using this transceiver in order to let you fully understand the functions, operation and maintenance method of this transceiver.

### ***This manual is applicable to:***

**BJ-UV99:** Dual Band FM Transceiver

**Announcement**

The following advices will help you better understand and operation this transceiver, please read carefully in order to let you operating **BAOJIE** brand series transceiver efficiently and safely.

- Do not short-circuit battery terminals or discard batteries in fire, do not take the case of battery pack apart by nonprofessional person.
- The charging temperature should be between 0°C-40°C, while charging is in progress, charging outside this range may not fully charge the battery.
- The battery's using time is shorten even in the correct charging, that means the battery 's life has come to end, please replace a new one.
- In order to avoid the unnecessary radio damage , please use the antenna, batteries and chargers which authorized by Baojie company.
- Please turn off the radio in explosive environments(Do not do any operation to the transceiver.) in order to avoid the explosion, for example: in gas stations, blasting areas, the region with detonators and in aircraft etc.
- Please do not place the transceiver in extremely dusty, humid, and/or wet areas, nor on unstable surfaces.
- Do not expose the transceiver to long periods of direct sunlight, nor place it close to heating appliances

**Announcement**

- Please do not use the transceiver to transmit for a long time, it may too heat to hurt person, and even damage the machine.
- Please cover the microphone jack if do not use the earphone etc accessories(if have the equipments).
- The keyboard, control knob and transceiver's case will easy be dirty after long time use, please remove it from the control knob, then use neutral detergent (do not use strong chemical corrosion) and wet cloth to clear the transceiver's case. It will damage the transceiver's case if using the strong chemical of detergents, alcohol, spray or petroleum product etc.

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**Unpacking and checking equipments**

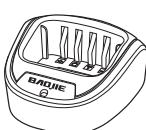
Please unpack the transceiver carefully from the box. We recommend that you confirm the items which list below before discarding the packing material. If one of any items lost or damaged during transportation, please contact with your nearest **BADJIE** dealer immediately.

**Supplied accessories**

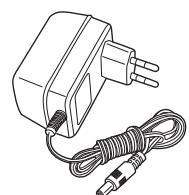
Rubber Antenna



Li-ion battterypack



Charger



Adapter



Belt clip



User's manual

01

**Charging operation**

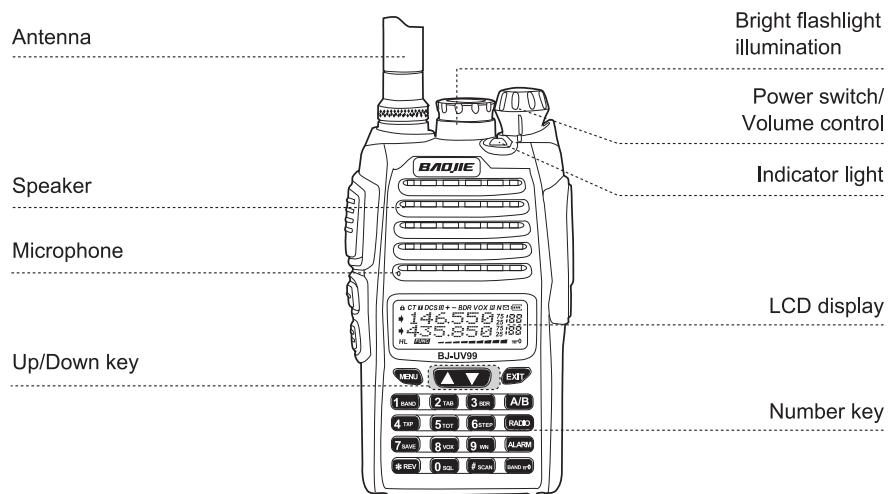
If the battery indicator is like that  , it means the battery is out of the power, please charge it.

Please use **BAOJIE** authorized charger, the indicator light of the charger can show you the charging status.

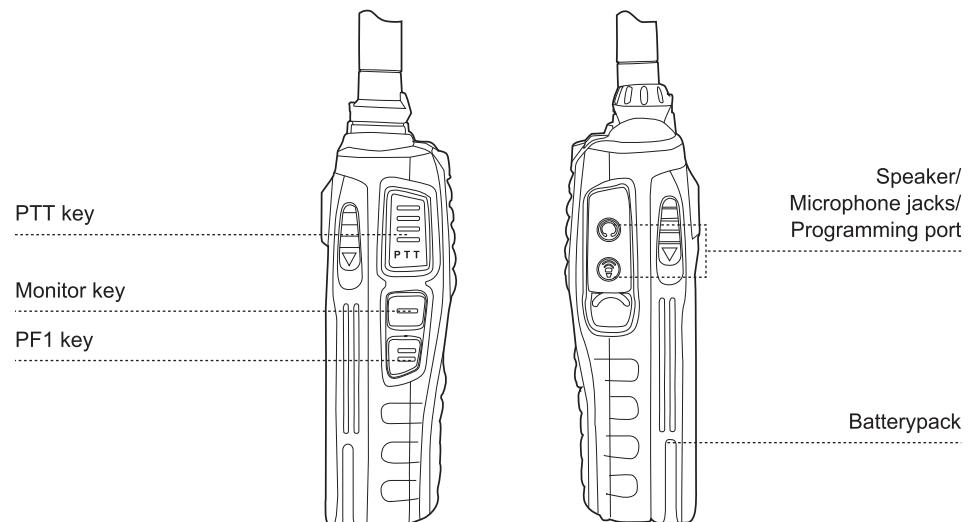
INDICATOR LIGHT DISPLAY	STATUS
RED	CHARGING
GREEN	CHARGING COMPLETED

**Please charge the battery pack as follow****02**

- Please insert the power transformer into the 230V AC plug;
- Please insert the DC plug of the power transformer into the DC socket which located in the back of the charger;
- Please insert the battterypack or the transceiver with the battterypack into the charger;
- Please confirm the battterypack is well connected with the charging terminals, charging start when light turns red;
- Charging completed when light turns green after charge about 3 hours. You can remove it or use the transceiver with the battterypack

**Getting acquainted(BJ-UV99)****Description of transceiver****03**

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**Antenna:** This is rubber antenna used for the receiving and transmitting signal.

**Indicator light:** The lights red while transmitting, the lights green while receiving a signal.

**Power switch/Volume control:** Turn clockwise to switch ON the transceiver. To switch OFF the transceiver, turn counter clockwise until a "click" sounds, Rotate to adjust the volume level.

**LCD display:** Display the transceivers working status.

**Microphone:** Audio input.

**Louderspeaker:** Audio output.

**Up/down key:** To change the display frequency, menu number and menu contents by up/down key.

**Number key:** Used for input the frequency and functions.

**PTT transmitting key:** The transceiver being in transmitting mode when press PTT key; it return to the receiving mode when release the PTT key.

**Monitor key:** You can hear the signal or noise from the channel which you selected in receiving mode when press monitor key.

**Speaker/ Microphone jacks/Programming port:** Used for the connect with the earphone or programming cable, and you can do the programming operation through PC programming software.

**Battery pack:** Power supply for the transceiver.

**1750 Burst tone:** Press PTT key while the transceiver is transmitting. then press **BAND 1-6** key determined how long transmit 1750Hz burst tone. release **BAND 1-6** key to end transmitting it.

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**Brief introduction of functions**

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1. Working mode
  - FM 87-108MHz(Receiving)
  - VHF 136-174 MHz(Receiving & transmitting)
  - UHF 400-470 MHz(Receiving & transmitting)
2. Working mode: Frequency mode, channel mode
3. Digital FM radio
4. Dual frequency display
5. U&V dual band working mode  
can be selected arbitrarily
6. Dual frequency standby in any band
7. DTMF signaling system
8. Alarm(Distant and spot alert)
9. All calls, group calls and selective calls
10. Inspection, Monitor, Stun and Kill
11. 50 Groups CTCSS and 105 Groups DCS
12. Non-standard CTCSS editable (from 60Hz to 259.9Hz)
13. Transmitting & receiving CTCSS or DCS can be edited respectively
14. High/Low power adjustable via AIARM key when transmitting
15. Transmit Over Timer
16. 5 kinds of frequency step (5K, 6.25K, 10K, 12.5K, 25K)
17. Multi-kind batterypack save modes
18. Vox function
19. Channel bandwidth selectable (Wide/Narrow)
20. Busy channel lockout
21. Low voltage alarm with audible and visual
22. Auto backlight
23. Auto/Manual keyboard lock

24. Three display colors selectable for in transmitting, receiving and standby
25. Frequency, channel order and channel name of three-display modes
26. ANI code display(caller ID)
27. Ring alert
28. DTMF sidetone switch(DT-ST, ANI-ST, DT+ANI)
29. 3 kinds of scan mode(TO/CO/SE)
30. PTT-ID Function(BOT/EOT/BOTH)
31. Multi-kind mute modes (QT/AND/OR)
32. offset direction can be setted only in frequency mode
33. Offset frequency( can be set between 0-69.950 MHz in frequency mode)
34. Operating MENU items directly through keyboard
35. Frequency, channel and menu fast search function
36. Channel parameter can be setted in frequency mode
37. 128 memory channels
38. Reverse frequency function(Receiving & transmitting frequency can be interchanged)
39. U/V receiving and transmitting inter-band can be connected with repeater
40. Wire clone function
41. Computer programmable
42. Bright flashlight illumination

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**LCD display**

You can see various icons show on the screen when power on, the following table can help you identificate the icons' meaning which display on LCD.



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----- It indicates the transmitting signal strength when transmitting, and it indicates the receiving signal strength when receiving.

**188** In channel mode, it indicates the channel order when in frequency and channel name display mode. It indicates the current menu order when in menu setting mode.

**146.550** <sup>75</sup> **435.850** <sup>75</sup> It displays the receiving and transmitting frequency, FM radio frequency, menu items, menu value and other working mode.

Indicators	Description of functions
<b>CT</b>	No definition
<b>DCS</b>	This is CTCSS indicators, it appeared when transmitting CTCSS signal.
<b>BDR</b>	It means the optional signal is available when it appeared (This transceiver only has the DTMF one optional signal).
<b>+</b>	This is DCS indicators, it appeared when transmitting DCS signal.
<b>-</b>	No definition
<b>+</b>	Increased frequency
<b>-</b>	Decreased frequency
<b>BDR</b>	It means the dual band standby function had been set if it displays in static, but do not been activated.; it had been in dual standby mode when it flickers and it can be standby the two bands' frequency which display on the screen at the same time.

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Indicators	Description of functions
<b>VOX</b>	This means the VOX function had been startup, it begins transmit when the volume of the microphone had reached the preset value.
<b>R</b>	The receiving and transmitting frequency interchanged in frequency/channel mode.
<b>N</b>	It appears when the current working mode is narrow bandwidth.
<b>✉</b>	No definition
<b>🔋</b>	It displays the current battterypack capacity, the outer-frame of the battery flickers when the battery is about to exhausted, then you can not transmit.
<b>π-0</b>	It appears when the keyboard is locked, unlock the keyboard by long press <b>BAND π-0</b> key.
<b>H</b>	High power
<b>L</b>	Lower power
<b>➡</b>	It indicates the current transmitting, receiving and standby working band.

**Keyboard operation**

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MENU	UP	DOWN	EXIT
1/BAND	2/TAB	3/BDR	A/B
4/TXP	5/TOT	6/STEP	RADIO
7/SAVE	8/VOX	9/WN	ALARM
*/REV	0/SQL	#/SCAN	BAND/π-0



MENU	▲	▼	EXIT
1 BAND	2 TAB	3 BDR	A/B
4 TXP	5 TOT	6 STEP	RADIO
7 SAVE	8 VOX	9 WN	ALARM
* REV	0 SQL	# SCAN	BAND π-0

MENU	Description of functions
<b> MENU</b>	This is start key to enter the menu setting mode, press this key means to confirm the current menu items if had been in menu setting mode.
<b> ▲ / ▼</b>	In frequency mode, to change the current receiving frequency by UP/DOWN key according to the frequency step which had been set when in standby; in channel mode, to change the channel by UP/DOWN key when in standby; press more than 2 seconds will fast go forward or backward if you want to change the setting of menu items and value. To change the scan direction under scan mode.

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MENU	Description of functions
	This is Return/ Clear key, press this key to exit the menu setting when in menu setting state; to cancel the last input number when in frequency, channel and FM radio frequency input state.
	Reverse frequency key, receiving and transmitting frequency interchange.
	Startup the frequency or channel scan by pressing this key more than 2 seconds.
	Press this key to switch A/B band display and working band.
	Startup FM radio by pressing this key.
	Startup distant Alert by pressing this key.
	Press this key, it can be choose bands (VHF, UHF); or hold it for 2 seconds, the keypad will be locked, do the same will unlock the keypad.
	This is number key, used for input frequency, channel order, menu items and menu value. The other menu items name means you can directly setting by pressing those keys when in menu setting mode.

## Menu operation

Menu system is an operation system which used for setting each parameters, to meet everyone's different preference and using purpose through setting from menu.

### How to operate

In standby, press [] key, the screen displays

Press [] / [] key to change the menu items, use the numeric keys to input the menu item's number you need, then the lower indicator on the screen will flicker display the original menu setting.

Press [] key again, arrow cursor point to the menu setting, the screen displays

Press [] / [] key to change the menu setting, also you can input your needed setting directly through keyboard.

Press [] key again to confirm, the corresponding function indicators will appear on the screen, the

arrow cursor back up to the menu item at the same time, the screen displays

Then you can continue set other menus, also you can press [] key to return the standby mode.

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**Brief introduction of functions**

Menu order	Function name	Function Description	Optional settings
0	SQL	Squelch level	0,⋯,9
1	BAND	Band selection	VHF
			UHF
2	TX-AB	Transmitting selection in dual standby	OFF
			A
			B
3	BDR	Dual frequency standby	OFF
			ON
4	TXP	Transmitting power	HIGH
			LOW
5	TOT	Transmit over timer	15,30,⋯,600
6	STEP	Frequency step	5.00K
			6.25K
			10.00K

Menu order	Function name	Function Description	Optional settings
7	SAVE	Battery save mode	12.50K
			25.00K
			OFF
			1:1
			1:2
			1:3
8	VOX	VOX transmit	1:4
			OFF
9	WN	Bandwidth	1,2,⋯,10
			WIDE
10	R-DCS	Receiving DCS	NARR
			OFF
			D023N,⋯,D754I
11	R-CTCS	Receiving CTCSS	OFF
			67.0Hz,⋯,254.1Hz

Menu order	Function name	Function Description	Optional settings
12	T-DCS	Transmitting DCS	OFF
			D023N,⋯,D754I
13	T-CTCS	Transmitting CTCSS	OFF
			67.0Hz,⋯,254.1Hz
14	ABR	Auto backlight	OFF
			1,2,3,4,5
15	BEEP	Beep prompt switch	OFF
			ON
16	ANI-SW	ANI code switch	OFF
			ON
17	OPTSIG	Optional signal	OFF
			DTMF
18	SPMUTE	Mute mode	QT
			AND
			OR
19	ANI-ID	Transceiver's ANI ID code	

Menu order	Function name	Function Description	Optional settings
20	RING-T	Ring time	OFF
			1,⋯,10
21	DTMFST	DTMF sidetone switch	OFF
			DT-ST
			ANI-ST
			DT+ANI
22	S-CODE	Signal information code	1,⋯,8
23	SC-REV	Scan mode	TO
			CO
			SE
24	PTT-ID	Transmit PTT ID	OFF
			BOT
			EOT
			BOTH
25	PTT-LT	Transmit ANI code delay	0,1,⋯,30

Menu order	Function name	Function Description	Optional settings
26	MDF-A	A channel display mode	FREQ
			CH
			NAME
27	MDF-B	B channel display mode	FREQ
			CH
			NAME
28	BCL	Busy channel lockout	OFF
			ON
29	AUTOLK	Auto keyboard lock	OFF
			ON
30	SFT-D	Frequency shift direction	OFF
			+
			-
31	OFFSET	Offset frequency	00.000,⋯,69.990
32	MEMCH	Memory channel	000,⋯,127
33	DELCH	Delete channel	000,⋯,127

Menu order	Function name	Function Description	Optional settings
34	WT-LED	Standby display color	OFF
			BLUE
			ORANGE
			PURPLE
35	RX-LED	Receiving display color	OFF
			BLUE
			ORANGE
			PURPLE
36	TX-LED	Transmitting display color	OFF
			BLUE
			ORANGE
			PURPLE
37	RESET	Reset	VFO ALL

## Menu introduction

### Setting Squelch level --- Menu 0

Setting squelch grade, available values are 0-9, 0 is always open squelch, 1 opens when the signal is weak, 9 opens when the signal is strong. Whether to open the speaker depends on if it had set the CTCSS/DCCS or other optional signal.

### Band selection --- Menu 1

This menu is used for setting the current working band. There are VHF, UHF can be selectable, A/B band (The band display on the upper and lower line on the screen.) can be set as working band respectively.

Options	Working band
VHF	136-174 MHZ
UHF	400-470 MHZ

### Press PTT key select transmitting band in dual standby mode --- Menu 2

In dual standby mode and had been activated, press PTT key to select the transmitting band, when the setting is A, it is A band transmit, and it is B band transmit when the setting is B. To select OFF

transmitting band depends on the current band which arrowhead aim at. Dual band standby do not startup or had been startup but do not being activated will not control by this menu; this menu used for control the transceiver to connect with repeater to communication.

**Dual standby startup switch --- Menu 3**

This setting decide if standby the frequency or channel which display in the upper and lower line on the screen at the same time; if "BDR" displays in static means dual standby do not work, if it flicker display means dual standby startup.

**18****Transmitting power selection --- Menu 4**

This is used for selecting the High/Low power transmit, press **ALARM** key can change the High/Low power when transmitting mode.

**Transmit over timer --- Menu 5**

TOT is to limit the transmitting time when press PTT key, it can be set between 15 seconds and 600 seconds, the transmitting light will flicker before 10 seconds when is about to arrive the preset time limit, then remind you transmit over time.

**Frequency step --- Menu 6**

In frequency mode, to increase or reduce the frequency step press [**▲**]/[**▼**] key, there are 5.00K, 6.25K 10.00K, 12.50K and 25.00K 5 kinds of step can be selected.

**Batterypack save mode --- Menu 7**

This menu is used to set batterypack save mode, 1:1 is an equally spaced save mode, 1:4 is the best save mode, the first calling may a little delay while batterypack save mode.

**VOX transmit --- Menu 8**

Setting the VOX function, 1 levels only need a low volume to startup VOX transmit, 10 levels needs loudly volume to startup this function.

**Bandwidth selection --- Menu 9**

To select the bandwidth, there are Wide and Narrow bandwidth can be selected.

**19****Receiving DCS --- Menu 10**

This menu is used to set the receiving DCS, in order to avoid invalid call interference, once the setting confirmed, the original setting of receiving DCS will be automatically canceled.

**Receiving CTCSS --- Menu 11**

This menu is used to set the receiving CTCSS, in order to avoid invalid call interference, once the setting confirmed, the original setting of receiving CTCSS will be automatically canceled.

Except 50 groups standard CTCSS, you can set non-standard CTCSS from 60.0 to 259.9Hz through keyboard.

For example: If you want to set 110.5Hz non-standard receiving CTCSS, to input the 1105 directly before enter into the setting selection mode.



#### **Transmitting DCS --- Menu 12**

#### **Transmitting CTCSS --- Menu 13**

The above two menu settings are the same with the Menu 10 and 11, but they only works in transmitting mode, when the "CT", "DCS" appears means it had transmitted the CTCSS or DCS signal during the transmitting.

#### **Auto backlight --- Menu 14**

This menu is set to control how long to go out the keyboard light and backlight after operating and the time of auto backlight.

#### **Beep prompt switch --- Menu 15**

To select if have beep prompt when operating.

#### **ANI code switch(Caller ID) --- Menu 16**

Whether to display the caller ID in another transceiver when the caller transmit the ANI code.

#### **Optional signal --- Menu 17**

You can accomplish all calls, group calls and selective calls etc functions through DTMF optional signal; if you want to use the function of all calls, group calls and selective calls, please make sure you had turn on the optional signal function.

#### **Mute mode --- Menu 18**

This menu is used to set in the conditions of the open speaker, you can use all calls, group calls and selective calls if this menu be set reasonable when optional signal working.

#### **Transceiver's ANI ID code --- Menu 19**

To display the transceiver's ANI ID code( Must be programming by computer).

#### **Ring time --- Menu 20**

The transceiver will ring when receiving the calling of the signal code in the case of having set the optional signal function; this menu is used to set how long to open the speaker after ring time.

#### **DTMF sidetone switch --- Menu 21**

This menu is used to control if the transceiver transmit the same DTMF signal when transmit DTMF.

Setting	Function
OFF	Turn off DTMF sidetone
DT-ST	To transmit DTMF sidetone by keyboard when transmitting, do not transmit DTMF sidetone when auto transmitting.

ANI-ST	To transmit DTMF sidetone when auto transmitting, do not transmit DTMF sidetone by keyboard.
DT+ANI	Transmit DTMF sidetone both auto transmitting and transmit by keyboard.

#### **Signal information code --- Menu 22**

When PTT-ID had set as BOT, EOT or BOTH, press or release the PTT key to transmit the DTMF information code(DTMF information code must be programming by computer.)

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#### **Scan mode --- Menu 23**

This menu is used to set how to deal with after scanned the signal when scanning.

Setting	Function
TO	Continue scanning after 5 seconds when scanned a signal.
CO	Scanning stop when scanned a signal, it will continue scanning after signal disappeared 3 seconds.
SE	Scanning will stop when scanned a signal.

#### **PTT-ID --- Menu 24**

This menu is used to set if to transmit all kinds of ID code when press or release PTT key.

BOT	Transmit ID code when press PTT key, release PTT key do not transmit ID code
-----	--

EOT	Transmit ID code when release PTT key, press PTT key do not transmit ID code
-----	--

BOTH	Transmit ID code either press or release PTT key.
------	---

It is depending on the programming software whether to transmit the signal code or transceiver's ANI code.

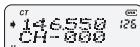
#### **Transmit ANI code delay --- Menu 25**

This menu is used to set the interval time from press PTT key to start transmit ANI code.

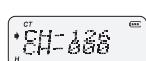
#### **A channel display mode --- Menu 26**

In channel mode, it decide the display mode of the upper channel;

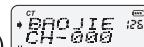
FREQ(display channel frequency+channel order)



CH(display channel order)



NAME(display channel name+display channel order with number)



The channel name is programmed by computer, if the channel do not set channel name in the channel name mode, the system will auto changed CH mode.

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***B channel display mode --- Menu 27***

The operation is the same with the Menu 26, but this setting only works to the channel which display on the lower of the screen.

***Busy channel lockout --- Menu 28***

When this menu is set to ON, it will prohibit to transmit after received a signal.

***Auto keyboard lock --- Menu 29***

When this menu is set to ON, it will auto lock keyboard when you do not any operation within 10 seconds, if you want to unlock, press more than 2 seconds this  key.

**24*****Frequency shift direction --- Menu 30***

In frequency mode, if the receiving and transmitting frequency is different, to set plus or minus offset according to the transmitting frequency is higher or lower receiving frequency. The offset frequency is set by Menu 31.

***Offset frequency --- Menu 31***

In frequency mode, the difference of receiving and transmitting frequency is set by this menu.

***Memory channel --- Menu 32***

In frequency mode, to set a channel's parameter and memory in appointed channel order through relative menu.

***Delete channel --- Menu 33***

This menu is used for deleting the parameter in appointed channel, it will make a prompt voice about error operation if the channel to be deleted and not exist.

***Standby display color --- Menu 34***

It decides the LCD backligt color in standby mode.

***Receiving display color --- Menu 35***

It decides the LCD backligt color in receiving mode.

***Transmitting display color --- Menu 36***

It decides the LCD backligt color in transmitting mode.

**25*****Reset --- Menu 37***

To reset transceiver's parameter.

VFO When you use reset VFO, all function parameters will return to the factory default.

ALL When you used reset ALL, the transceiver's all settings return to default set.

## How to operate

### Setting FM radio

Startup FM RADIO, press [  ], to change FM frequency by [  ]/ [  ] key, also you can input your desired receiving FM frequency directly through keyboard



Note: Dual standby function will auto cancel after FM startup, it only standby in the frequency which arrowhead aim at. The system will cancel the FM radio mode temporarily when there is signal in this frequency and turn into the receiving mode. It will auto return to the FM radio mode a few seconds later while receiving completed and continue to radio.

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### Bright flashlight illumination

This transceiver have bright flashlight illumination function, you can turn on or turn off light through press PF1 key. In order to save battery power, we suggest you not regularly turn on it.

### Distant urgency alarm

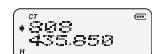
Startup alarm, press [  ], the LCD displays



"ALARM" will flicker display. The transceiver will transmit the alarm signal in the frequency which arrowhead aim at in a certain time interval, and the transceiver will sound the audible and visual alarm at the same time, you can turn off this function by programming software if you do not need to sound alarm during transmitting alarm signal. The transceiver can be received the alarm signal and made a alarm sound from other factories transceiver.

and the receiving light will flicker display at the same time. The frequency which

arrowhead aim at will flicker display the ANI code from the caller



It will cancel the alarm when received a signal by pressing PTT key or MONI key during alarm.

You can press [  ] again to cancel the alarm.

### A/B switch

You can switch between the upper and lower frequency on the screen by pressing [  ]. If the dual standby had startup, the arrowhead aim at the band which set by TX-AB menu.

### Band switch: in frequency mode, it can be fast switch bands press key

There are VHF, UHF different working band can be set arbitrarily both in the upper and lower display band on the screen in this transceiver. The setting band works which the arrowhead aim at, so this transceiver can work arbitrarily in UU, UV, VV, VU etc dual frequency mode. In channel mode, which is the working band in upper and lower band depends on the channel which you called, then the setting of menu is invalid.

### Memory channel

A complete channel including the parameter of working band, receiving and transmitting frequency, receiving and transmitting CTCSS/DCS, transmitting power, channel bandwidth, PTT-ID, optional signal,

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mute mode, busy channel lockout, signal information code, adding channel scan, channel name etc. All the parameter can be set in frequency mode and then memory in the appointed channel order through Menu 32(Memory channel) except adding channel scan and channel name, they must be edited by programming software.

For example: if you need to store parameter in a channel

Receiving frequency

146.550MHz

Transmitting frequency

147.550MHz

Receiving CTCSS

69.3Hz

Transmitting DCS

D023N

Transmitting power

High

Channel bandwidth

Wide

PTT-ID

OFF

Optional signal

OFF

Mute mode

CTCSS/DCS

Adding channel scan

Must be programmed by computer

Channel name

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A. In frequency mode, to cancel the dual standby at first

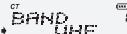


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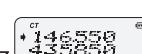
B. To check if there had set parameter in channel order 116, must be cancel it if had set it before. It means the channel has the parameter store in it if the channel order display "CH", please delete it. "CH" will disappear in channel order after deleted, then the channel is blank, you can store new parameter in it.



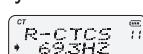
C. Setting working band



D. Setting receiving frequency 146.550MHz



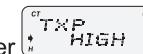
E. Setting receiving CTCSS



F. Setting transmitting DCS



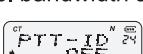
G. Setting transmitting power



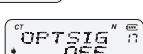
H. Setting channel bandwidth as "NARROW", then "N" will appear



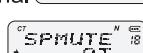
I. Setting PTT-ID



J. Setting optional signal

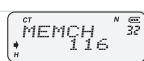


K. Setting mute mode



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## L. Store it in channel order 116

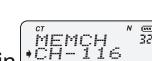


"CH" will appear in front of the 116 after press [ **MENU** ] key, then means the parameter had been stored in channel order 116, but the transmitting and receiving frequency is the same, you must to store the transmitting frequency again.

## M. Setting transmitting frequency



## N. To do the operation of the memory channel again



The operation of the store channel had been completed, the channel will auto be added in scan list when memory channel in transceiver, so there is not need to do the operation of the adding scan. If you do not want to add this channel into the scan list ,you can set adding scan for "OFF" by programming software read it, then to write it in transceiver again.

**Working mode switch**

Press [ **MENU** ] key can switch between the frequency mode and channel mode when turn on radio. You must input the right password to switch the working mode if you had set password by programming software.

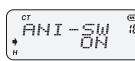
**All calls, group calls and selective calls**

This transceiver can achieve the function of all calls, group calls and selective calls by DTMF signaling system. The transceiver must had wrote everyone's ANI code by programming software if

you want to achieve the function of all calls, group calls and selective calls.

For example, there are 30 pcs of transceiver in the group, the ANI code is 600-609, 700-709, 800-809 in sequence, all the transceiver must to do the setting as below except writing ANI code for each transceiver.

## A. Turn on the ANI code display switch



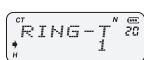
## B. Startup DTMF optional signal



## C. Setting mute mode to

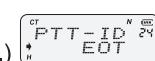


## D. Setting ring time arbitrarily



## E. Setting PTT-ID to EOT

( it can not display caller's ANI code if you do not set it.)



**All calls:** For example, the transceiver of 600 want to call other transceiver, input [ \*REV ] [ \*REV ] [ \*REV ]

after press PTT key, then all the transceiver in the group will have a ringing signal and open their speaker, this is the function of all calls.

**Group calls:** For example, the transceiver of 600 want to call 10 pcs of transceiver from 700-709,

input [ 7SAVE ] [ \*REV ] [ \*REV ] after press PTT key, then the transceiver from 700-709 will have a ringing signal and open their speaker, this is the function of the group calls.

And if you want to call the transceiver from 800-809, just input [8 vox] [ \*REV ] [ \*REV ], then you can call them.

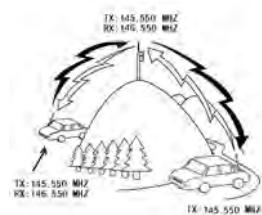
**Selective calls:** You can directly input ANI code of receiver after press PTT key, then only one transceiver will have a ringing signal, this is the function of the selective calls.

#### Communication through repeater

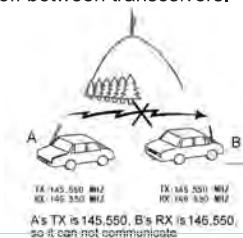
The communication distance will be further through the repeater. The transmitting and receiving frequency is different when using repeater to communicate. In frequency mode, to set the different frequency for receiving and transmitting through the menu of frequency shift direction and offset frequency; in channel mode, receiving and transmitting frequency can be edited respectively.

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The transmitting frequency of all the transceiver is the same by using the repeater, and all the receiving frequency of the transceiver is the same too.

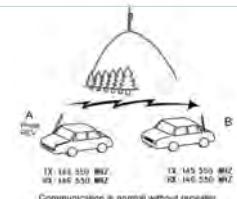


If the repeater unable to work, or the transceiver is far away the repeater which made the repeater can not transfer the signal effectively, then the communication will break off between transceivers.



This transceiver had set a [ \*REV ] menu to avoid this phenomenon happens.

When you found you can not call which caused the repeater can not provide service, only need to press [ \*REV ] key by transceiver, then lead to exchange receiving and transmitting frequency of the caller's transceiver, it will be reached the purpose of directly communication between the transceiver without repeater.



#### UV inter-band communication

The receiving and transmitting frequency is in a different band under special occasions of repeater, then the most transceiver unable to receive and transmit by repeater, but our transceiver can join the repeater by the relative menu setting.

1. To set the upper and lower working band respectively by Menu **BAND**.
2. To adjust the upper and lower working band.
3. Startup the dual standby when the Menu 3 is set to "ON".
4. To appoint the upper transmitting band by Menu 2 TX-AB, set to A the upper band is A, set to B the upper band is B.

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#### Wire clone function

To connect two transceiver by cloning cable, turn on source radio and press **MONI** key, then all the parameters in channel can be cloned into another transceiver.

**Trouble shooting**

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Problem	Solutions
Transceiver can not switch on.	<ul style="list-style-type: none"> <li>■ The battelpack may be exhausted, to check if it has power; please recharge or replace the battelpack.</li> <li>■ The battelpack may be not installed properly, please reinstalled the battelpack.</li> </ul>
Transceiver can not receive the signal	<ul style="list-style-type: none"> <li>■ To check if the receiving frequency is the same with the transmitting frequency; if the distance between the transmitting and receiving exceed the transceiver's communication distant.</li> <li>■ If there is a big obstacle between the transmitting and receiving.</li> <li>■ If the squelch level be set in a high level.</li> <li>■ If the transmitting power of the transceiver be set to LOW, this will cause the transmitting power become lower.</li> <li>■ If the battelpack is exhausted.</li> </ul>
The signal had been received, but there is no sound from the speaker.	<ul style="list-style-type: none"> <li>■ To check if the setting of CTCSS/DCS the same with transmitter.</li> <li>■ If the optional signal had been set, the transmitter must transmit the signal information code which transceiver can identify in case of having set this function, then speaker can be opened.</li> </ul>

Problem	Solutions
Transceiver can not transmit.	<ul style="list-style-type: none"> <li>■ The transmitting is prohibited when the battelpack is exhausted.</li> </ul>
The battelpack is easy being exhausted.	<ul style="list-style-type: none"> <li>■ The battelpack save mode do not startup.</li> <li>■ The battelpack life is finished.</li> </ul>
You can not communicate with other member in the group.	<ul style="list-style-type: none"> <li>■ Please confirm you are using the same frequency and CTCSS/DCS as the other member in your group.</li> <li>■ Other groups may far away from you, please confirm you are within range of the other transceiver</li> </ul>
You receive other groups' signal in channel.	<ul style="list-style-type: none"> <li>■ Please change the channel order of the CTCSS/DCS. Be sure to change the tone on all transceiver in your group.</li> </ul>
The receiving voice is too lower.	<ul style="list-style-type: none"> <li>■ Please check if the MIC of transceiver was blocked up and if the volume potentiometer is open larger enough.</li> </ul>

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**Technology parameter****CTCSS standard frequency list**

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	71.9	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

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**DCS standard groups**

1	D023N	16	D074N	31	D165N	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	D065N	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	D346N	74	D454N	89	D612N	104	D743N
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N	90	D624N	105	D754N

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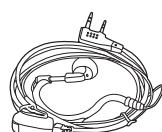
**Technology specification**

Frequency range	VHF:136-174 MHZ(Receiving/Transmitting) UHF:400-470 MHZ(Receiving/Transmitting)
Memory channels	128 channels
Working mode	Co-channel or Dis-channel simplex
Working temperature	0°C ~+45°C
Operating voltage	7.4V DC ±13%
Modulation	FM(F3E)
Power output	High: VHF 5W/UHF 4W Low:1W (VHF/UHF)
Maximum frequency deviation	≤ ± 5KHz
Spurious radiation	7 μW
Frequency stability	± 2.5ppm
Receiving sensitivity	<0.18 μV
Audio output power	500mW
Transmitting current	1.5A or lower
Standby current	46mA or lower
Weight	200g
Dimension	65x113x35mm

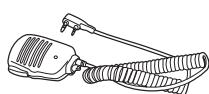
Note: The above specifications subject to change without notice.

**Optional Accessories**

We can provide more accessories on your demand, and make your use more convenient and comfortable and meanwhile improving your work efficiency. The parts of our product are made of high quality standards; they will make the performance of your transceiver more excellent.



Earphone



Hand microphone



Clone wire



Programming cable

## Declaration

**BAOJIE** strive to achieve the accuracy and completeness of this manual, but take no responsibility for any possible errors or omissions. All the above specifications subject to change by **BAOJIE** without notice.

This manual may not be copied, adapted or translated without prior written permission by **BAOJIE** except the copyright law allowed.

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### FCC Warning:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Safety training Information

Your radio generates RF electromagnetic energy during transmit mode. This radio is designed and classified as "occupational Use Only" meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the "general population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "occupational Only". In addition, your QUANZHOU BAOJIE ELECTRONICS CO.,LTD .radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

1. FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
2. American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
3. American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields- RF and Microwave.

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4. The following accessories are authorized for use with this product. Use of accessories other than those (listed in the instruction) specified may result in RF exposure levels exceed the FCC requirements for wireless RF exposure.

To ensure that your expose to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

1. DO NOT operate the radio without a proper antenna attached, as this may damaged the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.
2. DO NOT transmits for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the "TX indicator" lights red. You can cause the radio to transmit by pressing the "PTT" switch.
3. ALWAYS keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the BAOJIE belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side. The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as\*sure that this radio operates with the FCC RF exposure limits of this radio.

**Electromagnetic Interference/Compatibility** During transmissions, your BAOJIE 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. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites. **Occupational/Controlled Use** The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.