

*Thanks for buying the **Wouxun** transceiver. This transceiver offers latest design, multi functions, stable performance and easy operation. We believe you will be pleased with the high quality and powerful functions.*

NOTE 

- » Please do not use the transceiver in explosive environment.
- » Please turn off the transceiver when refueling or parking at gas station.

READ THIS IMPORTANT INFORMATION ON THE SAFE AND EFFICIENT OPERATION BEFORE USING **Wouxun** PORTABLE TRANSCEIVER. This manual is ONLY suitable for KG-816.

PRECAUTIONS


Professional FM Transceiver

This transceiver is with excellent design and advanced technology. Please follow the below suggestions and warning to assist you to carry out the responsibilities on warranty terms, and learn the safety before using the transceiver.

1. Please keep the transceiver and accessories out of the reach of children.
2. Do not disassemble the transceiver to avoid the possibility of damaging by a non-professional.
3. Please ONLY use **Wouxun** supplied battery pack and charger to avoid the possibility of damaging the transceiver.
4. Please ONLY use **Wouxun** supplied antenna to avoid the possibility of damaging the transceiver.
5. Neither expose the transceiver directly to the sunlight nor in the overheated places for a long time.
6. Keep the transceiver away from the dusty or humid places.
7. Clean the transceiver with a mild brush/cloth or detergents instead of the aggressive chemical material.
8. Do not transmit before well installing the antenna.
9. If any abnormal odor or smoke is detected from the transceiver, please power it off immediately, then remove the battery pack from the transceiver. And contact your **Wouxun** dealer.

PRECAUTIONS

NOTE

- » All the above mentioned suggestions and warnings are compatible for all **Wouxun** series transceivers and accessories. Please contact your **Wouxun** dealer about any upset operation.
- » **Wouxun** manufacturer is not responsible for any safety or operation problems, which are caused by using the incompatible accessories or parts.

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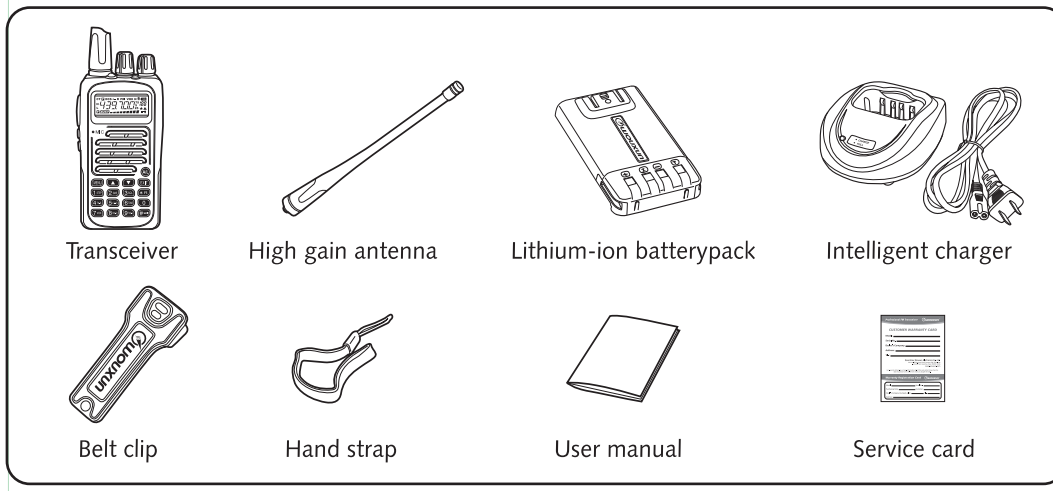
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Unpacking and checking of your equipment

Carefully unpack the transceiver. We suggest you that identify the items on the following table before discarding the packing material. If any items are missing or have been damaged during transportation, please notify your **wouxun** dealer.

Supplied accessories



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Description of functions

wouxun
Professional FM Transceiver

1. VHF: 136~174MHz
2. Output power: VHF: 1W
3. 199 memory channels
4. DTMF encoding and decoding
5. ANI ID caller
6. VOX
7. All calls, group calls and selective calls function
8. Calling ring function
9. Stopwatch function
10. 105 groups DCS/50 groups CTCSS
11. Voice guide (English/Chinese)
12. Wide/Narrow bandwidth selection (25KHz/12.5KHz)
13. Auto backlight
14. Various display modes: channel number, channel frequency&channel name
15. Reverse frequency function
16. Distant urgency alarm, SOS function
17. Multi scan
18. Priority scan function

02

Description of functions

19. Inspection, monitor, stun, kill and emergency
20. Digital FM radio
21. Step frequency selection (5/6.25/10/12.5/25/50/100KHz)
22. High/Low power selectable
23. High capacity lithium-ion batterypack
24. Intelligent charger
25. Offset frequency setting (0.05-69.950MHz)
26. Setting frequency shift direction
27. Busy channel lockout
28. Multi power-on display modes (full screen / Batt-V / others)
29. Low voltage voice prompt
30. Transmit overtime prompt
31. Keypad lock (auto / manual)
32. Adding scan channel function
33. High/Low power changeable when transmitting
34. Programmable by computer
35. Wireclone function
36. Menu / channel reset
37. IP55 waterproof

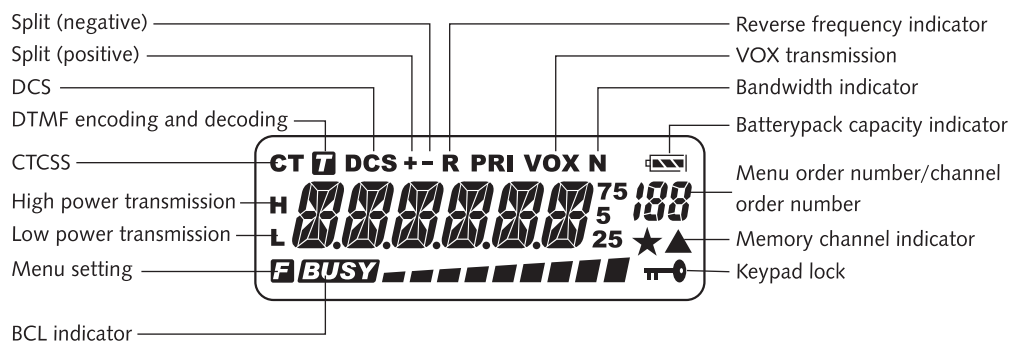
03

Getting started

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Professional FM Transceiver

LCD display

There are various indicators displaying on the screen when powering on. Please refer the below table to learn what those indicators stand for accordingly.



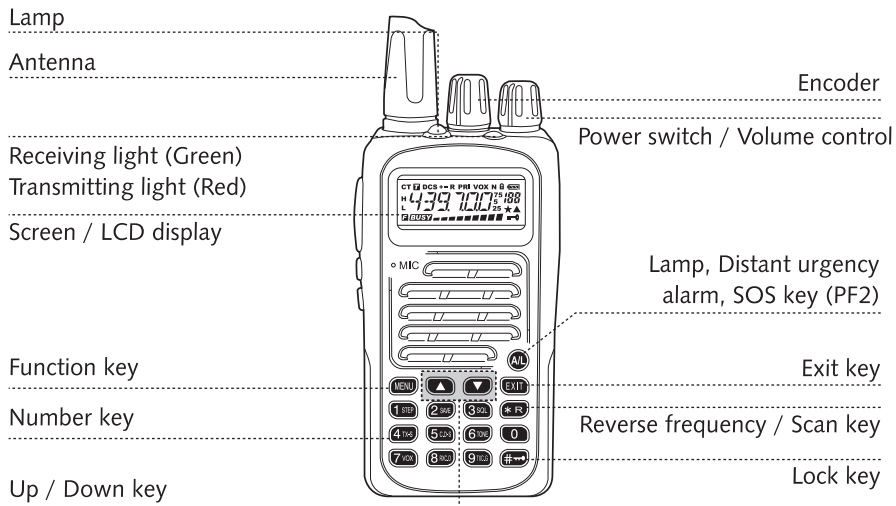
Note:

- Batterypack capacity indicator (full)
- Batterypack capacity indicator(exhausted)
- Remaining batterypack capacity indicator
- Receiving signal meter

04

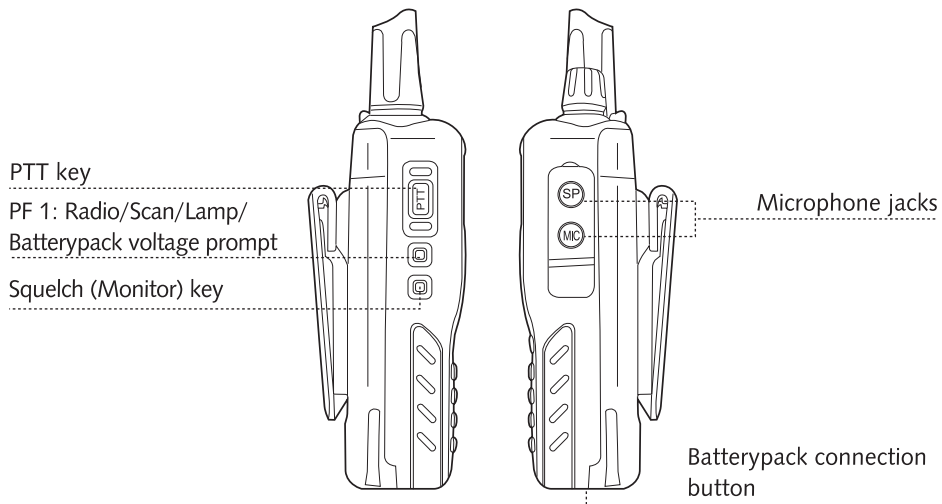
Getting started

Description of transceiver



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Professional FM Transceiver



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Getting started

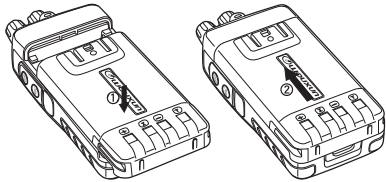
■ Install/remove batterypack

The batterypack is not fully charged before leaving factory. Please charge it before use.

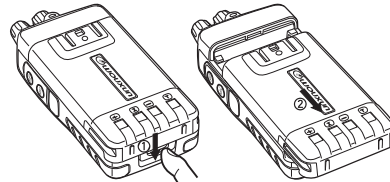
NOTE

- » Do not shortcircuit the terminals or put the batterypack into fire.
- » Do not try to remove the case from the batterypack.

1. Please aim the batterypack at the back of the transceiver, and then push up and press down the batterypack to lock the release latch. (PIC1)
2. If you want to remove the batterypack, push down the release latch and remove up the batterypack from the transceiver. (PIC2)



PIC1



PIC2



07

■ Speed search



During the setting process, press once  or  to search functions and parameters. Holding on  or  can activate the speed search.

■ DTMF encoding

This transceiver is with DTMF encoding function. Please press number keys or function keys directly. The corresponding DTMF code will be transmitted. Number keypad and DTMF encoding are homologous as following:

MENU			EXIT	A	B	C	D
1 STEP	2 SWE	3 SQL	* R	1	2	3	*
4 TWS	5 CDS	6 TONE	0	4	5	6	0
7 VOX	8 RICD	9 TICS	# →	7	8	9	#

■ Switch work mode

Work mode switching key:  + . Every operation can switch frequency mode and channel mode.

■ Transmit 1750Hz tone


Press PTT and PF1 at the same time to transmit 1750Hz tone.

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Shortcut operation sheet

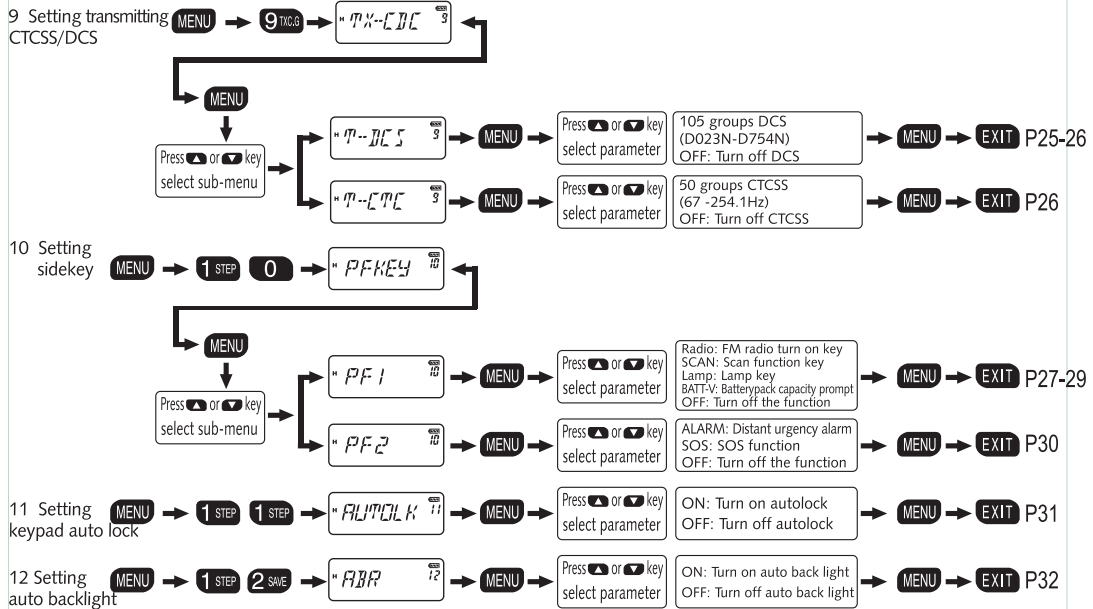
Function order	Function name	Enter function set	Screen display	Select parameter	Selectable parameter-explanation	Confirm	Back	See page
1 Setting frequency step	MENU → 1 STEP	"STEP"	MENU →	Press ▲ or ▼ key select parameter	7 kinds of channel step 5K/6.25K/10K/12.5K/25K/50K/100K	MENU →	EXIT	P15
2 Setting power save mode	MENU → 2 SAVE	"SAVE"	MENU →	Press ▲ or ▼ key select parameter	ON: Turn on save function OFF: Turn off save function	MENU →	EXIT	P16
3 Setting squelch level	MENU → 3 SOL	"SOL --LE"	MENU →	Press ▲ or ▼ key select parameter	Squelch level from 0 to 9	MENU →	EXIT	P16
4 Setting transmission	MENU → 4 TXS	"TXSET"	MENU →	Press ▲ or ▼ key select step				
		"TXP"	MENU →	Press ▲ or ▼ key select parameter	H: High power (VHF 5W/ UHF 4W). L: Low power (1W)	MENU →	EXIT	P17
		"TOT"	MENU →	Press ▲ or ▼ key select parameter	Transmit overtime alarm levels are from 1 to 10 and 1 second each level. OFF: Turn off transmit overtime alarm	MENU →	EXIT	P18
		"TOT"	MENU →	Press ▲ or ▼ key select parameter	TOT is with 40 levels in steps of 15 seconds. OFF: Turn off TOT.	MENU →	EXIT	P18
		"BCL"	MENU →	Press ▲ or ▼ key select parameter	ON: Turn on busy channel lock out OFF: Turn off busy channel lock out	MENU →	EXIT	P19
		"WIN"	MENU →	Press ▲ or ▼ key select parameter	WIDE: 25KHz. NARR: 12.5KHz.	MENU →	EXIT	P19

09

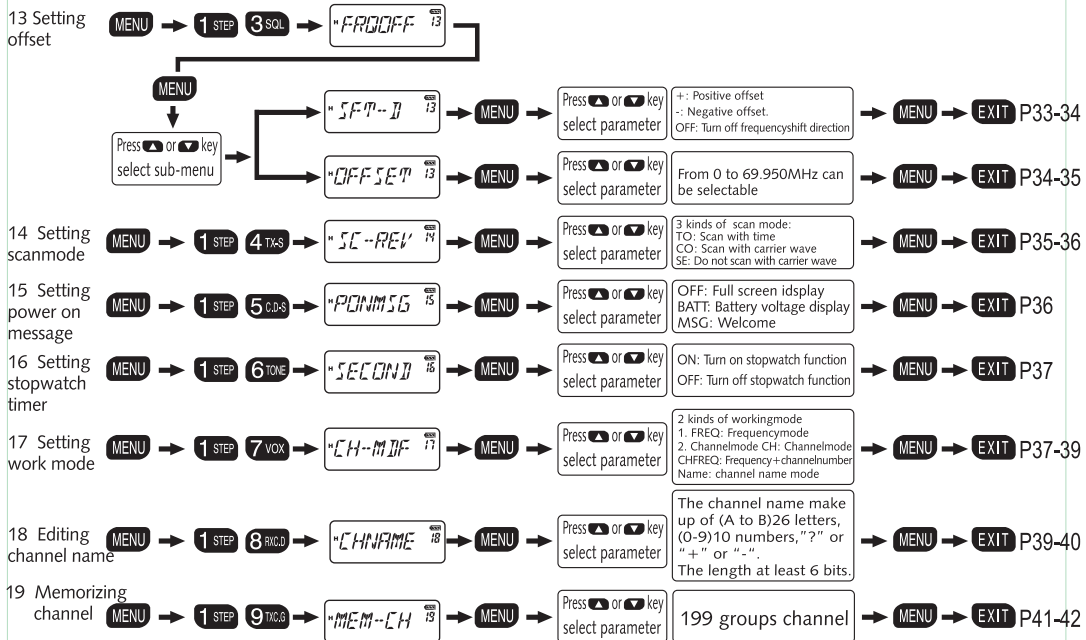
								
5 CTCSS/DCS frequency scan	MENU → 5 C.D.S	"SCAN CD"	MENU →	Press ▲ or ▼ key select parameter	CTCSS: CTCSS scan DCS: DCS scan	MENU →	EXIT	P20
6 Setting voice guide	MENU → 6 TONE	"SETVOC"	MENU →	Press ▲ or ▼ key select step				
		"VOICE"	MENU →	Press ▲ or ▼ key select parameter	CHINES: Chinese ENGLISH: English OFF: Turn off voiceguide	MENU →	EXIT	P21
		"ROGER"	MENU →	Press ▲ or ▼ key select parameter	OFF: Turn off all, not transmit BOT: Press PTT to transmit EOT: Releasing PTT to transmit BOTH: Both pressing and releasing PTT to transmit	MENU →	EXIT	P22
		"BEEP"	MENU →	Press ▲ or ▼ key select parameter	ON: Turn on beepprompt OFF: Turn off beepprompt	MENU →	EXIT	P22
7 Setting VOX	MENU → 7 VOX	"VOX"	MENU →	Press ▲ or ▼ key select parameter	VOX levels are from 1 to 10. OFF: Turn off VOX transmission	MENU →	EXIT	P23
8 Setting receiving CTCSS/DCS	MENU → 8 R.C.D	"RX-DCS"	MENU →	Press ▲ or ▼ key select step				
		"R-DCS"	MENU →	Press ▲ or ▼ key select parameter	105 groups DCS (D023N-D754N) OFF: Turn off DCS	MENU →	EXIT	P24
		"R-CTC"	MENU →	Press ▲ or ▼ key select parameter	50 groups CTCSS (67 -254.1Hz) OFF: Turn off CTCSS	MENU →	EXIT	P25

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Shortcut operation sheet

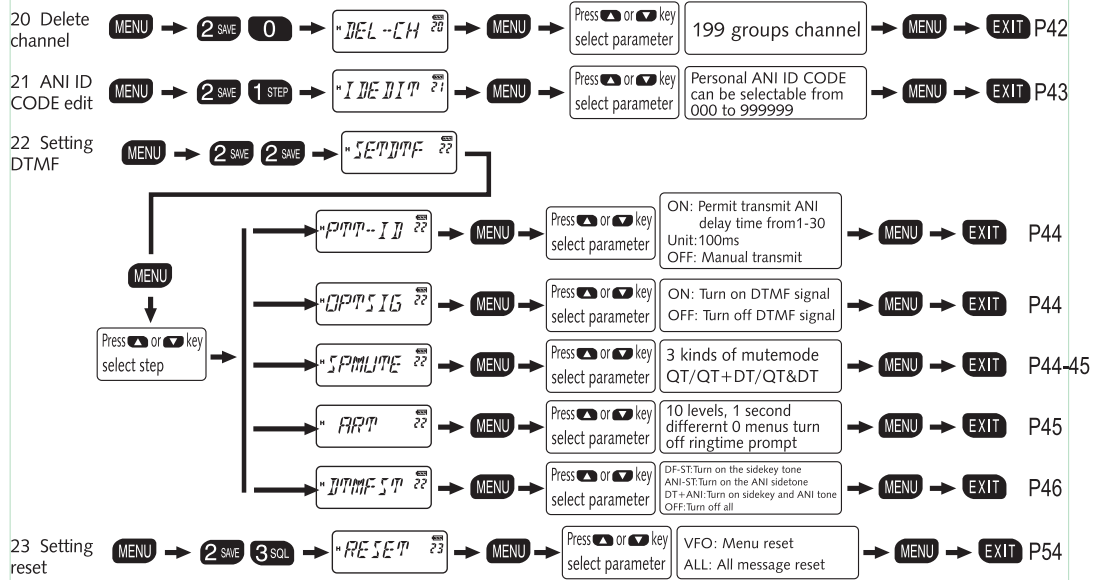


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Shortcut operation sheet



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- Speed search ▲ / ▼ (See page 8)
- High/Low power changeable when transmitting (See page 17)
- All calls, group calls and selective calls (See page 47-49)
- Inspection, monitor, stun, kill and emergency (See page 50-53)
- Priority scan function (See page 55)
- Low voltage voice prompt (See page 56)
- Setting reverse frequency function (See page 55)
- Adding channel scan function (See page 56)
- Wireclone function (See page 56)
- Setting transmit overtime prompt (See page 57)
- Work with repeater (See page 57-58)

How to operate

Menu lock function

If you do not need to operate menu frequently, you can turn it off via programming software:

The steps as following:

1. Set password of switching between channel mode and frequency mode.
2. Set work mode as channel mode.
3. Turn off menu in channel mode.

Setting frequency step (STEP) ---- MENU 1

In standby, press **MENU** + **1 STEP** and the screen will display "STEP 1".

Press **MENU** enter, and then press **▲** / **▼** to select the desired step. Press **MENU** to confirm, and then press **EXIT** to return to standby.

There are seven options for you: 5 KHz, 6.25 KHz, 12.5 KHz, 25KHz, 50KHz and 100KHz steps.

Setting power save mode (SAVE)----MENU 2

This function is to turn off the receiver circuit for a while, and then turn on again to detect signals.

Without receiving or transmitting, this function will help battery pack reduce consumption.

In standby, press **MENU** + **2 SAVE** and the screen will display "SAVE 2".

Press **MENU** enter and press **▲** or **▼** to select ON or OFF.

Press **MENU** to confirm, and press **EXIT** to return to standby.

Setting squelch level (SQL-LE) --- MENU 3

This function is to turn on the squelch when the signal is strong while turn off the squelch when the signal is weak. When squelch opens and the signalings are the same, the speaker will sound. Higher squelch level may cause uneffective receiving when the signal is weak; Lower squelch level may cause interruptions from noise or the unrelated signals.

NOTE

» The squelch level options are from 0 to 9. Level 0 means closing the squelch. Level 0-9 makes different levels of noise reduction.

In standby, press **MENU** + **3 SQL** and the screen will display "SQL-LE 3".

Press **MENU** enter and select the desired squelch level, and then press **MENU** to confirm, press **EXIT** return to standby.

How to operate

Setting transmission (TXSET)--- MENU 4

There are 5 options as followings:

TXP: Selecting transmit power

TOA: Setting transmit overtime alarm

TOT: Transmit overtimer

BCL: Busy channel lock out

W/N: Setting wide or narrow bandwidth

1. TXP function is to change transmitting output power.

NOTE

- » (1) Shortcut power conversion: High/Low power can be converted during transmission. Hold on PTT key and press **AVL** at the same time to convert high/low power.
- » (2) Shortcut power conversion is temporary. When powering on the transceiver again, the value will be resumed.

In frequency mode, press **MENU** + number key **4^{TXS}**. The screen will display " TXSET ". Press **MENU** enter. The screen will display " TXP ". And then press **MENU** enter, and press **▲** or **▼** to select HIGH/LOW power. And then press **MENU** to confirm and press **EXIT** to return to standby.

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2. Transmit overtime alarm means that the transceiver will beep prompt and the transmitting indicator will flash. when the transmitting time nearly reaches the limit time preset by TOT.

There are 10 optional levels for transmit overtime alarm, whose step is one second per level.

Level 1 means the transmit overtime alarm will prompt one second ahead when the transmitting time nearly reaches the TOT preset value.

In frequency mode, press **MENU** + number key **4^{TXS}**. The screen will display " TXSET ".

Press **MENU** enter. The screen will display " TOA ". Press **▲** or **▼** to select TOA function, and then press **MENU** enter. Press **▲** or **▼** to select "OFF" to turn off this function; or select your desired level from 1-10. Press **MENU** to confirm and press **EXIT** to return to standby.

3. Transmit overtime timer (TOT) is designed to prevent the transceiver transmitting for a long time.

When the transceiver continuous transmitting time is over than the preset time, the transmission will be compulsorily broken off, and the beep will prompt.

TOT value can be set from 15 to 600 seconds. There are 40 levels. Each level is in step of 15 seconds.

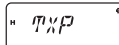
In frequency mode, press **MENU** + number key **4^{TXS}**. The screen will display " TXSET ". Press **MENU** enter, the screen will display " TOT ". Press **▲** or **▼** key to select the desired transmitting level. Press **MENU** to confirm and press **EXIT** to return to standby.

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How to operate

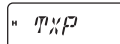
4. Transmit overtime timer (TOT) can prevent the transceiver from interfering the other communicating transceivers. If the selected channel is occupied by the other transceivers, the transceiver can not be transmitted even though you press PTT key.

In frequency mode, press **MENU** + number key **4^{TOT}**. The screen will display .

Press **MENU** enter. The screen will display . Press **▲** or **▼** key to select BCL. Press **MENU** enter and press **▲** or **▼** to select "ON" or "OFF", and then press **MENU** to confirm and press **EXIT** to return to standby.

5. Wide/Narrow bandwidth selection can change the bandwidth while the transceiver works.

In frequency mode, press **MENU** + number key **4^{TWS}** and the screen will display .

Press **MENU** enter, and the screen will display , press **▲** or **▼** and select W/N function.

Press **MENU** enter, press **▲** or **▼** to select WIDE or NARR bandwidth, press **MENU** to confirm and press **EXIT** return to standby.

CTCSS/DCS frequency scan (SCN CD) ---- MENU 5

The function will scan all CTCSS and DCS frequency in order to confirm if the transmitting party transmits CTCSS/DCS frequencies. If the CTCSS/DCS of your transceiver is not matched with the other transceivers' in the same group, you can use this function to confirm CTCSS/DCS frequencies.

When the transceiver is in receiving status, press **MENU** + number key **5^{CD}** and the screen will display

. Press **MENU** enter, press **▲** or **▼** to select CTCSS/DCS, then press **MENU** to confirm.

CTCSS/DCS frequency scan starts.

NOTE

- » The function is not available in channel mode.
- » The transceiver is unable to start the function for scanning without detecting signals.
- » Press **▲** or **▼** to turn around the encoder switch to reverse the scan direction.
- » The transceiver will display the detected CTCSS/DCS during the scanning. At this moment, press **MENU** to replace the transceiver's pre-set CTCSS/DCS temporarily. Or you can store this detected CTCSS/DCS frequency permanently via MENU 8 and MENU 9 setting. Otherwise this temporary CTCSS/DCS frequency will be resumed to the original setting after resetting.

How to operate

Setting voice guide (SETVOC)--- MENU 6

This menu is for the below function settings:

VOICE: Setting voice guide

ROGER: Begin/End transmission prompt.

BEEP: Setting beep prompt.

1. There are 2 options for voice guide: English&Chinese. CHINES means Chinese voice guide, while ENGLISH means English voice guide.

In frequency mode, press **MENU** + number key **6 TONE** and the screen will display "SETVOC".

Press **MENU** enter, and the screen will display "VOICE", press **▲** or **▼** and select VOICE function.

Press **MENU** enter, press **▲** or **▼** and select ENGLISH/CHINES. Or select OFF to turn off the voice guide function. Then press **MENU** to confirm and press **EXIT** return to standby.

NOTE

» If you want to turn off all keypad prompt, you also need to turn off voice guide and beep prompt functions.

2. **ROGER:** means the optional modes of transmitting prompt.

OFF: Turn off this function, so no prompt transmits.

BOT: Press PTT and prompt transmits.

EOT: Release PTT and prompt transmits

BOTH: Both pressing and releasing PTT, prompt transmits

In frequency mode, press **MENU** + number key **6 TONE** and the screen will display "SETVOC".

Press **MENU** enter, and the screen will display "VOICE", press **▲** or **▼** to select ROGER function.

Press **MENU** enter, press **▲** or **▼** and select OFF/BOT/EOT/BOTH.

Then press **MENU** to confirm, and press **EXIT** return to standby.

3. Beep prompt function is to confirm the correct operation, and prompt the wrong operation or malfunction.

In frequency mode, press **MENU** + number key **6 TONE** and the screen will display "SETVOC".

Press **MENU** enter, and the screen will display "VOICE", press **▲** or **▼** to select BEEP function.

Press **MENU** enter, press **▲** or **▼** to select ON/OFF to turn on/off beep prompt.

Then press **MENU** to confirm and press **EXIT** return to standby.

How to operate

Setting VOX (VOX)---MENU 7

When detecting the availability of voice, the transceiver will automatically switch over to transmitting mode. Since VOX circuit should detect the availability of voice firstly, you may note the transmission will be a little delayed. And the first beginning of voice information may not be transmitted.

In standby, press **MENU** +number key **7** **VOX** and the screen will display .

Press **MENU** enter, press **▲** or **▼** and select OFF to turn off this function, while select from level 1 to 10 to turn on this function. Press **MENU** to confirm and press **EXIT** to return to standby.

NOTE

- » Higher level, greater volume is required to open VOX.
- » When the transceiver is in scanning or FM radio mode, VOX function is not workable.

Setting receiving CTCSS/DCS (RX-DCS)--- MENU 8


Sometimes perhaps you only want to hear the calling from the specific person or group. At this moment, you can ignore the unnecessary callings from the same frequency via CTCSS/DCS function. Only when receiving the same CTCSS/DCS signals, the transceiver will be relieved from mute.

There are 2 options:

R-DCS: Setting receiving DCS

R-CTC: Setting receiving CTCSS

1. In frequency mode, press **MENU** +number key **8** **RDC** and the screen will display .

Press **MENU** enter, and the screen will display , press **▲** or **▼** to select R-DCS function.

Press **MENU** enter, press **▲** or **▼** to select OFF to turn off DCS, while select one DCS value from D023N to D754I. Press **MENU** to confirm and press **EXIT** return to standby.

NOTE

- » This transceiver is with 105 groups DCS. Please see the appendix(2)D.C.S code sheet. DXXXN (from D023N to D754N) means positive code while DXXXI (from D023I to D754I) means negative code.