

How to operate

Setting Offset Frequency (OFF-SET) --- MENU 23

Offset frequency means the difference between Tx and Rx frequency. This transceiver's offset frequency range is between 0 to 69.950MHz.

In standby mode, press **MENU** + **SOL2** **SAVE3**, the screen displays 

Press **MENU** to enter, then press **▲** / **▼** to select offset frequency or input the offset frequency through key pad directly press **MENU** to confirm, press **EXIT** return to standby.

Setting frequency shift direction and offset frequency only in Frequency mode, as for receiving and transmitting in different frequencies.

Operating steps:

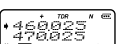
1. Set the working frequency
2. Set the frequency shift direction and offset frequency.

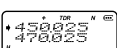
E.g.: In frequency mode, the transceiver needs to work on receiving frequency 450.025MHz and transmitting frequency 460.026MHz

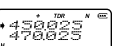
In Frequency mode, input **TXP4** **ROEF5** **0** **0** **SOL2** **ROEF5** then press **MENU** + **SOL2** + **TXP4** + **MENU** to select positive direction (+), press **MENU** + **EXIT**, then press **MENU** + **SOL2** + **SAVE3** + **MENU** + **▲** / **▼** to choose 10.000+ **MENU** + **EXIT**, the frequency shift direction and offset frequency set.

30

The screen displays ,

press PTT to transmit and the screen displays .

Release PTT the screen displays ,

it means receiving frequency is .

and transmitting frequency is .

Setting Frequency shift direction (SFT-D) ---- MENU24

Shift direction means that:

1. The transmit frequency is higher than receive frequency. This is called positive offset (+).
2. The transmit frequency is lower than receive frequency. This is called negative offset (-).
3. Turn off frequency shift

In standby mode, press **MENU** + **SOL2** **TXP4**, the screen displays 

Press **MENU** to enter, press **▲** / **▼** to select +/- / OFF, then press **MENU** to confirm, press **EXIT** return to standby.

31

How to operate

Setting Stopwatch Timer (SECOND) --- MENU 25

In standby mode, press **MENU** + **SQL2** **5**, the screen displays 

Press **MENU** to enter, it shows 'OFF', then press **▲** / **▼** to turn ON/OFF this function, press **MENU** to confirm, press **EXIT** return to standby.

Using the stopwatch timer:

When this function is ON, press **→#** to start counting, while press any key to stop. Press **→#** again to start counting.

NOTE

» Stop counting, press any key (except **→#** key) to exit stopwatch timer function.

Channel name Edit (CHNAME) --- MENU 26

Edit Channel name:

1. Channel name should be within 26 letters (A to Z) and 10 numbers (0 to 9).
2. Channel name should be less than six length.
3. When selecting (-) means the bit is blank.

32

Edit method:

1. Via programming software.
2. Via keypad of transceiver.

Editing:

1. At least one channel should have been stored.
2. The transceiver should be in Channel mode.
3. Enter channel name edit, press **▲** to select character while press **▼** to select edit position.

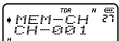
Edit step:

1. In Frequency mode, set NAME displaying mode, then press **MENU** and power on again. If in Channel mode, via MENU 21 set NAME displaying mode.
2. Select the desired edit channel, press **MENU** + **SQL2** + **TOT6** + **MENU**, the screen displays six '-' symbols, press **▲** to select characters and press **▼**, then press **▲** again to select two characters, after selecting the sixth character press **MENU** to confirm, press **EXIT** to exit. The screen displays the channel name and also the channel number on top right corner.

33

How to operate

Setting Memory Channels : Setting Co-channel and Dis-channel (MEM-CH) --- MENU 27

In Frequency mode and in standby, you can input the desired storing frequencies and each parameter. press **MENU** + **SQ2** **VOX7** , the screen displays 

Press **MENU** to enter, press **▲** / **▼** to select channel, then press **MENU** to store, a voice prompt means receiving stored. Press **EXIT** to exit, the current channel is co-channel. If you need to store dis-channel, repeat the above operation, another voice prompt means sounds – transmitting stored.

E.g.: setting 450.025MHz as receiving frequency and 460.025MHz as transmitting frequency which stored in CH-20, then set as following:

1. In Frequency mode, input **TXP4** **RECF5** **0** **0** **SQ2** **RECF5** + **MENU** + **SQ2** **VOX7** + **MENU** , then press **SQ2** **0** or **▲** / **▼** to select CH-20, press **MENU** to confirm, voice prompt means receiving stored, then press **EXIT** .
2. Input **TXP4** **TOT6** **0** **0** **SQ2** **RECF5** + **MENU** + **SQ2** **VOX7** + **MENU** + **MENU** , voice prompt means transmitting stored, then press **EXIT** .
3. The dis-channel is stored.

34

NOTE

- » If the stored channels need to set the CTCSS/DCS codes, you should set it before you stored, in case to stored into channel with frequency.
- » Transmitting store only can store transmit frequency.
- » Manual store, in frequency mode, only desired storing channel is empty can set receiving and transmitting store, or only can set transmitting store. If the channel had been edited, it can set receiving and transmitting store only after deleting the channel.
- » Besides manual store, via programming software can also set the functions and parameters.

Deleting Channel (DEL-CH) ----- MENU 28

In standby mode, press **MENU** + **SQ2** **WAX8** , the screen displays 

Press **MENU** to enter, and press **▲** / **▼** to select the desired deleted channel, then press **MENU** to confirm, the selected channel and message are deleted, press **EXIT** return to standby.

35

How to operate

Setting Reset ---- MENU 29


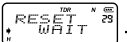
This transceiver has two resets available - VFO and ALL messages.

When you use RESET VFO, all function parameters will return to default set.

When you use RESET ALL, the transceiver's all settings return to default set.

1. MENU Reset (VFO):

In standby mode, press **MENU** + **SOL2** **VOICE9**, the screen displays 

Press **MENU** to enter, and press **▲** / **▼** to select VFO, then press **MENU**, the screen displays  , press **MENU** again to confirm, and the screen displays .

After set Reset, the transceiver will auto power off and reboot again.



2. All messages Reset (ALL)

To avoid disoperation, you can set the password of ALL messages Reset (ALL) for this transceiver through Programming software. All messages reset will only work after the right password is input. Pls see the Programming software for the setting of password, 6 figures, while setting "000000" means cancelling the password lock function.

(1). Setting password as "000000"


In standby, press **MENU** + **SOL2** **VOICE9**, the screen displays 


36

Press **MENU** to enter, and press **▲** / **▼** to select ALL, press **MENU**, the screen displays  then press **MENU** again to confirm, the screen displays  . when the reset is finished, the transceiver will automatically turns off and reboot again.

(2). Setting password as "XXXXXX" (E.g.: 123456)

In standby, press **MENU** + **SOL2** **VOICE9**, the screen displays 

Press **MENU** to enter, and press **▲** / **▼** to select ALL, press **MENU**, the screen will displays 

at this time input the six figure password (e.g.: 123456), the screen displays 

the transceiver will start resetting. After reset is finished, transceiver will automatically turns off and restart.

37

How to operate

Setting Priority Scan Function

If you want to monitor the other frequency and check the certain preferred frequency at the same time, you can set Priority scan function.

E.g.: Scan six channels: CH1, CH2, CH3, CH4 and CH5 as the common scanned channel, and CH6 set as the priority scanned channel. Scanning sequence as following chart:



— CH1 — CH6 — CH2 — CH6 — CH3 — CH6 — CH4 — CH6 — CH5 — CH6 —

If the transceiver checks the signal on "Priority Channel", it will call out its frequency. Select the priority channels via programming software.

Setting Reverse Frequency function

When using reverse frequency function, the transmitting and receiving frequency of transceiver will interchange, and the CTCSS and DCS encode and decode will interchange either.

Operating reverse frequency function:

In standby mode, press  to turn on the reverse frequency function; press  again to turn off.

In Frequency Mode:

1. If the menu setting turns on

38

2. If your transceiver permits reset

The editing method of the above two functions: via software

Low-voltage battery Voice Prompt

When the battery pack has low voltage, the transceiver will sound "low battery pack", and the LED will flash every 5 seconds and a "click" sounds.

Transmit Overtime Prompt

When transceiver transmits beyond the limited time, there will be a sound warning "transmit overtime", and stop transmitting. Press PTT to transmit again. (Setting Transmit Over Timer pls see page 16)

Adding scanning channel

NOTE

- » Channel scan only according to scan list which had been added.
- » Edit method: Strictly via programming software.

How to operate

Wire clone function


Using wireclone	Switch sourceradio on, after you have connected the targetradio to the sourceradio via the cloningcable, push the [MONI] key and the sourceradio starts cloning.	LED is flashing red during cloning. LED goes out in case of successful cloning. LED glows continuous red in case of cloning failure.
	Targetradio	LED is flashing green during cloning. LED will switch OFF when cloning complete.

Working with Repeater

This transceiver has two working modes while working with repeater.

- ① Frequency mode working with repeater ② Channel mode working with repeater

1. Frequency mode working with repeater

- ① Press **A/B** to choose band A, set the Tx frequency and sub-tones which need to work with the repeater.
- ② Press **A/B** to choose band B, set the Rx frequency (if the repeater has TX sub-tones, you can also set sub-tones in band B).
- ③ Press **MENU** + **TDR**, frequency mode working with repeater set. The TDR disappeared but the screen displays "  ".

40

NOTE

- » When the transceiver set Frequency mode working with repeater, Tx on band A while Rx on band B only.
- » To cancel the Frequency mode working with repeater, press **MENU** + **TDR**.

2. Channel mode working with repeater

- ① Edit the Tx & Rx frequency and sub-tones on the channel which need to work with repeater.
- ② In channel mode, and call out the above edited channel, press **A/B** to set this channel as the current one.
- ③ Press **TDR**, the screen displays the radios brand and the above edited channel only.

NOTE

- » The channel mode working with repeater set.
- » To cancel the Channel mode working with repeater, press **TDR**.

41

How to operate Trouble shooting

How to use the intelligent charger

1. Insert the AC plug into the outlet (AC: 90-240V), the charger indicator flashes, it means enter charging standby .
2. Insert the battery into the charger, the RED indicator turns on, it means charging, while GREEN indicator turns on, it means fully charged.

NOTE

- » When insert the exhausted battery pack into the charger, it pre-charge the battery pack in trickling charge, meanwhile, the RED light flashing and lasts 10 to 20 minutes, then enter normally charging with RED light on, it will turn to GREEN when fully charged.
- » Tricking charge the exhausted battery pack in case to protect the Li-ion battery.

Trouble shooting

Please check carefully if your transceiver has problems by following this chart.

If you maintain to have trouble you can reset your transceiver and very often this will eliminate your problem.

Problem	Solution
Cannot power on, no power	<ol style="list-style-type: none">1. The battery may exhausted, pls change the new battery or re-charge.2. The battery install incorrect, pls take out the battery and re-install.
Battery life not long	<ol style="list-style-type: none">1. The battery life is over, pls change a new battery.2. Not charging completely, be make sure fully charged before take out.
Receive light turn on but no sounds	<ol style="list-style-type: none">1. Make sure the volume is highest2. Make sure the CTCSS/DCS code is the same with other members.
Keypad do not work	<ol style="list-style-type: none">1. Make sure the keypad is locked or not.2. Make sure any other key stuck.
In standby, it will auto- transmit without pressing PTT	Make sure VOX function is ON or not, and its level is set too low or not.

Trouble shooting

Problem	Solution
Some functions can not be stored	Make sure work in Channel mode. Some functions can be set only via programming software in Channel mode.
Receive other groups signal while communicating	Pls change another CTCSS/DCS code of your group.

Technology parameter

Appendix 1

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	71.9	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

Technology parameter

Appendix 2

DCS									
1	D023N	16	D074N	31	D165N	46	D261N	61	D356N
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N
12	D065N	27	D152N	42	D246N	57	D332N	72	D446N
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N
14	D072N	29	D156N	44	D252N	59	D346N	74	D454N
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N

46

DCS									
76	D462N	82	D516N	88	D606N	94	D645N	100	D723N
77	D464N	83	D523N	89	D612N	95	D654N	101	D731N
78	D465N	84	D526N	90	D624N	96	D662N	102	D732N
79	D466N	85	D532N	91	D627N	97	D664N	103	D734N
80	D503N	86	D546N	92	D631N	98	D703N	104	D743N
81	D506N	87	D565N	93	D632N	99	D712N	105	D754N

47

Technology specification

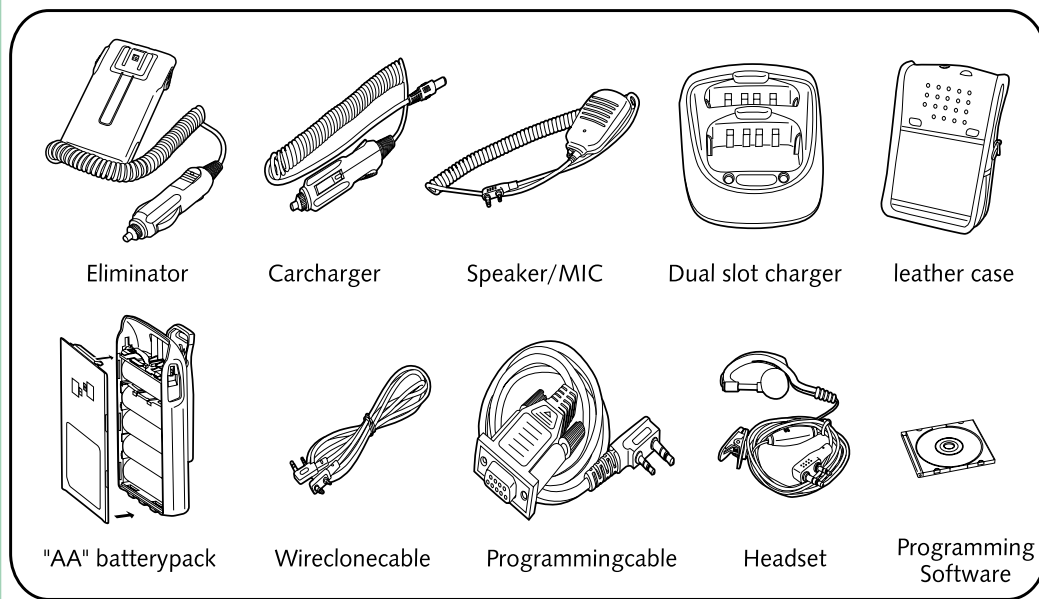
Frequencyrange	76-108MHz (Rx) UHF: 400-470.995MHz (Tx/Rx) VHF: 136-174.995MHz (Tx/Rx)
Memorychannels	128 channels
Operating Voltage	7.4V
Operating Temperature	-30°C to + 60°C
Working Mode	Co-channel or Dis-channel simplex
Output Power	VHF: 5W / UHF:4W
Modulation	F3E(FM)
Max. Frequency Deviation	≤ ±5KHz
Spurious Radiation	< -60dB
Frequency Stability	±2.5 ppm
Receive Sensitivity	< 0.2 μV
Audio Output power	≥ 500mW
Dimension	58 X 105 X 39 (mm)
Weight	250g

NOTE



» Specifications are subject to change without notice.

Optional accessories

 Professional FM Transceiver



Announce

 **Wouxun** endeavors to achieve the accuracy and completeness of this manual, but is not liable for any possible omission and printing errors. All the above specifications are subject to change by  **Wouxun** without prior notice.

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