MEMO

Thanks for buying the wouxun *transceiver.* It's a Amatuer Radio.

This transceiver offers latest design, enhanced features, solid performances and easy accessibility. We believe you will be pleased with the high quality and reliable features for all your communication needs.

READ THIS IMPORTANT INFORMATION ON THE SAFE AND EFFICIENT OPERATION BEFORE USING wouxun PORTABLE TRANSCEIVER.

User Safety, Training, and General Information

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR WOUXUN PORTABLE TWO-WAY RADIO.

Compliance with RF Energy Exposure Standards

Your WOUXUN two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE (FCC) and ICNIRP exposure limits for occupational/controlled RF exposure environment at duty cycles of up to 50% talk-50% listen and should be used for occupational use only. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

NOTE

» The approved batteries supplied with this radio are rated for a 5-5-90 duty cycle (5% talk-5% listen-90% standby), even though this radio complies with the FCC occupational RF exposure limits at duty cycles of up to 50% talk.

Your WOUXUN two-way radio Complies with the following of RF energy exposure standards and guidelines:

- 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 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

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:

Transmit and Receive

To transmit (talk), push the Push-To-Talk (PTT) button; to receive, release the PTT button.

Hand-held radio operation

Hold the radio in a vertical position with the microphone 5 cm away from the lips and keep the antenna

far away from your head.

Body-worn operation

Always place the radio in an WOUXUN approved clip, holder, holster, case, or body harness for this product. Use of non- WOUXUN -approved accessories may exceed FCC RF exposure guidelines.

Antennas & Batteries

- Use only WOUXUN approved, supplied antenna or WOUXUN approved replacement antenna.
- Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC regulations.
- Use only WOUXUN approved, supplied batteries or WOUXUN approved replacement batteries.
- Use of non- WOUXUN -approved batteries may exceed FCC RF exposure guidelines.

Approved Accessories

For a list of WOUXUN approved accessories,see the accessories page of this user manual or visit the following website which lists approved accessories:http://www.wouxun.com

Notices to the User

- Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.
- Illegal operation is punishable by fine or imprisonment or both.
- Refer service to qualified technicians only.

Warning ⚠

» It is important that the operator is aware of and understand hazards common to the operation of any transceiver. Explosive environment (such as gases, dust, fumes, etc). Turn off your transceiver while talking on fuel, or parking in gasoline servive stations.

» If you require this machine to be developed or get some changes, pleased contact with WOUXUN or your WOUXUN dealer.

FCC Caution:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Licensing Requirements

Your radio must be properly licensed Federal Communications Commission prior to use. Your Wouxun Wireless dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

Precautions

Only qualified technicians are allowed to maintain this product.

Do not use the radio or charge a battery in explosive areas such as coal gas, dust, steam, etc.

Switch OFF the radio while refueling or parking at a gas station.

Do not modify or adjust this radio without permission.

Do not expose the radio to direct sunlight over a long time, nor place it close to heat source.

Do not place the radio in excessively dusty, humid areas, nor place close to heating appliances.

Safety: It is important that the operator is aware of and understands hazards common to the operation of any radio.

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.

Warning ⚠

» MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

IC Caution:

Tout changement expressément ou toute modification non approuvée par la partie responsable de la conformité pourrait annuler le droit de l'utilisateur à utiliser l'équipement. Cet appareil est conforme à la partie 15 des règles ISED . Son fonctionnement est soumis aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences nuisibles, et

(2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant causer fonctionnement indésirable. Remarque: cet équipement a été testé et déclaré conforme aux limites d'un appareil numérique de classe B, conformément à la partie 15 des règles ISED . Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, peut causer des interférences nuisibles aux communications radio. Cependant, rien ne garantit que aucune interférence ne se produira dans une installation particulière. Si cet équipement cause les interférences nuisibles à la réception de la radio ou de la télévision, qui peuvent être déterminées en tournant le équipement éteint et allumé, l'utilisateur est encouragé à essayer de corriger l'interférence par un ou plusieurs des les mesures suivantes:

—Réorientez ou déplacez l'antenne de réception.

—Augmentez la séparation entre l'équipement et le récepteur.

—Connectez l'équipement à une prise sur un circuit différent de celui sur lequel le récepteur est lié.

—Consultez le revendeur ou un technicien radio / TV expérimenté pour obtenir de l'aide. Les

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Unpacking and Checking the Equipment

Carefully unpack the transceiver. We recommend that you identify the items in the following table before discarding the packing material. If any item is missed or has been damaged during shipment, please notify your WOUXUN dealer.

Supplied Accessories


Transceiver


High gain antenna


Li-ion batterypack


Intelligent charger


Beltclip


Handstrap


User's manual


Warranty card

Installing before use

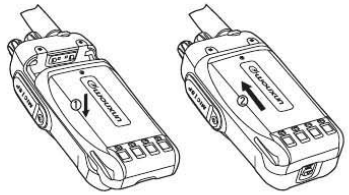
■ ***Install / remove batterypack***

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

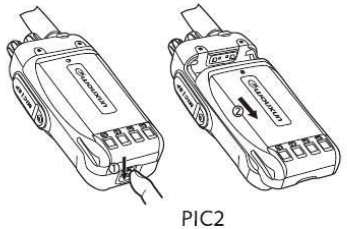
NOTE ⚠

≫ 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 the batterypack will be released from the transceiver. (PIC2)



PIC1



PIC2

Getting Started

Description of Features

1. Duplex Repeater (VHF to UHF or UHF to VHF)
2. Duplex Work Mode (TX on one area while RX on the other area simultaneously)
3. Dual Receiving (RX on the same/different bands of A&B areas simultaneously)
4. Large Colorful Screen
5. Frequency Range (suitable for different countries or areas):

   VHF:136-174MHz(VHF &Scanning), 144-148MHz(TX)
   UHF:400-520MHz(RX &Scanning), 420-450MHz(TX)
   FM:76-108MHz

6. Dual Display
   Dual Band Display on Large Screen, Two Independent Operation System
7. Frequency Offset and Direction Programmable in Repeater Mode
   UHF/VHF or VHF/UHF Cross-Band Repeater
8. 999 Memory Channels
9. Strong and Stable Output Power (VHF: 5W/UHF: 4W)
10. QT/DQT Encoding/Decoding, QT/DQT Scan
11. VOX
12. Multi Definition for Sidekeys
13. Incoming Message Display
    Caller ID display

14. DTMF Encoding&Decoding
15. All Calls, Group Calls And Selective Calls
16. SOS Function
17. Priority Scan Function
18. Remote Alarm
19. Wide/Narrow Bandwidth Selection (25KHz/12.5KHz)
20. Voice Guide:Chinese/English
21. Chinese/English Screen Display
22. Bright Flashlight Illumination
23. Single-Tone Pulse Frequency: 2100Hz/1750Hz/1000Hz/1450Hz (signalling for activating repeater)
24. Reverse Frequency
25. Stopwatch
26. Scrambler
27. Setting for Backlight
28. Compander

Specifications

Intergration	
Frequency Range	VHF:136-174MHz(RX &Scanning), 144-148MHz(TX) UHF:400-520MHz(RX &Scanning), 420-450MHz(TX) FM:76-108MHz
Step	5KHz / 6.25KHz / 10KHz / 12.5KHz
Work Mode	F3E
Operating Temperature	-20℃ or 40℃
Antenna Resistance	50Ω
Voltage	7.4VDC
Weight	490g
Size	124.5x 61.49 x 33.88 (mm)

Receiving	Wide bandwidth	Narrow bandwidth
Adjacent Channel Selectivity	⩽70dB	⩽60dB
Inter Modulation	⩽65dB	⩽60dB
Spurious Response	⩽70dB	⩽70dB
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB(0.3 ~2.55KHz)
Signal to Noise Ratio	⩾45dB	⩾40dB
Audio Distortion	⩽5%	
Audio Power	Transceiver⩽500mW	
Sensitivity	UHF/VHF:0.25μV(12dB SINAD)	

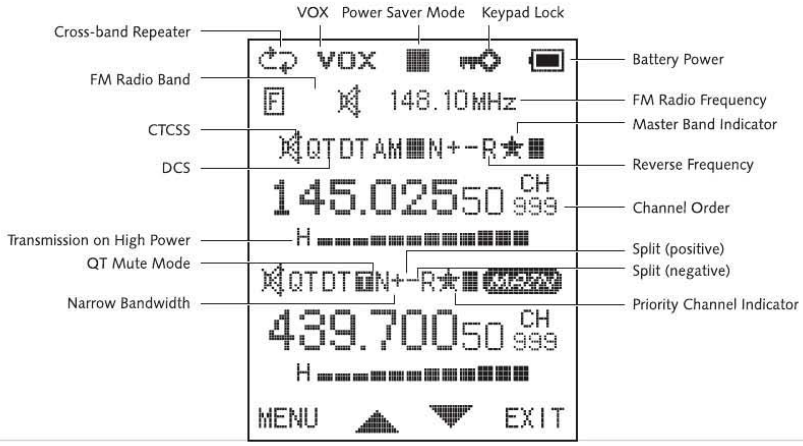
Transmitter	Wide bandwidth	Narrow bandwidth
Type of Modulation	16K F3E	11K F3E
Adjacent Channel Power	⩾70dB	⩾60dB
Spurious	⩾60dB	⩾60dB
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB (0.3~2.55KHz)

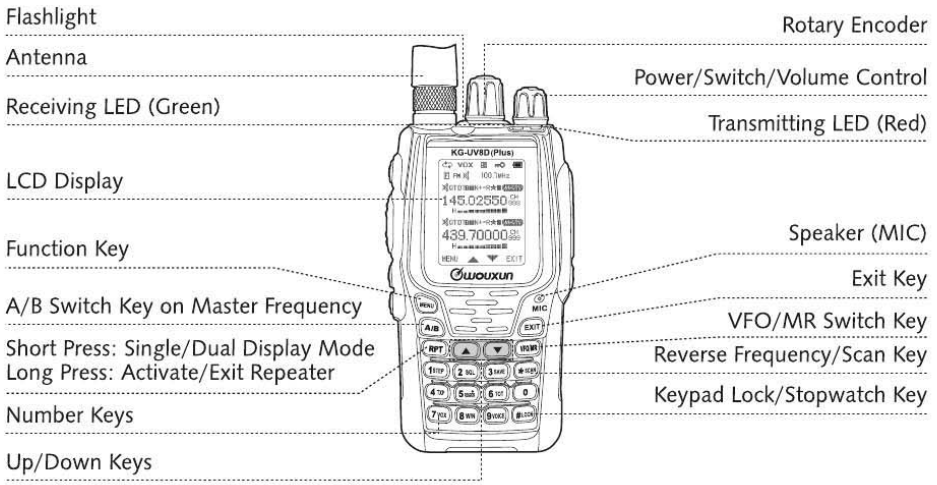
Transmitter	Wide bandwidth	Narrow bandwidth
Max Frequency Deviation	±5KHz	±2.5KHz
Frequency Stability	±2.5ppm	
Audio Distortion	⩽5%	
Output Power	5W/1W(VHF)	
	4W/1W(UHF)	

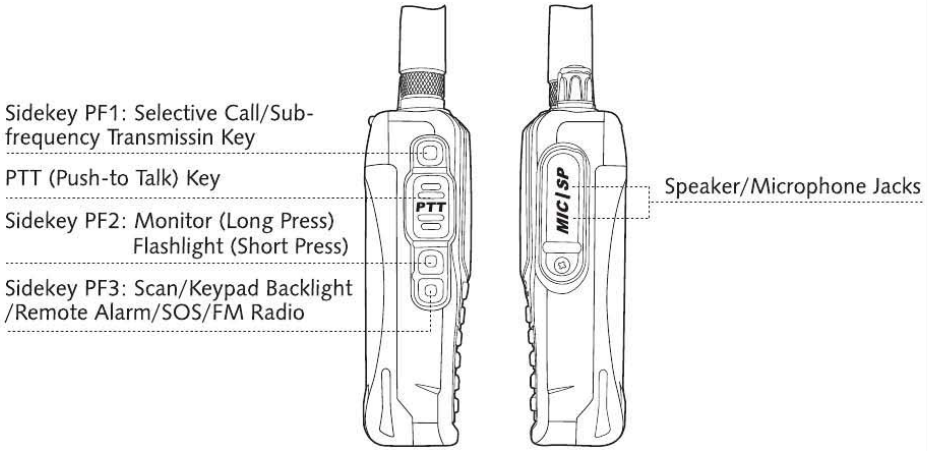
Description of Transceiver

LCD Display

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







Multi Work Modes

a. Normal transceiver's communication mode

b. Directional cross-band repeater mode or two way cross-band repeater mode

Note: Work modes can be switched via RPT key.

1. There are A and B areas on the LCD screen to display two bands' status. The master band is with a sign "MAIN" on the top right.This is an important sign, since all the below operation instruction are for the master band. The band without this sign is called "Sub-band".

2. Specifications on A&B bands can be programmed separately. Please set the band that you want to program any specifications into as the master band firstly.

3. Some functions are not allowed to be used under directional cross-band repeater or two way cross-band repeater mode.

Basic operation

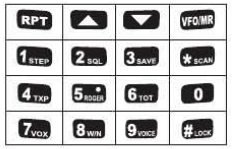
Quick Search

Short press ▲ or ▼ key to search the desired function/parameter during your setting, while long press to quick search.

DTMF encoding

This transceiver has DTMF encoding. By pressing the right number key on transmitting you can choose

the right DTMF tone which you want to TX. Number key and corresponding DTMF encoding are as belows:



A	B	C	D
1	2	3	*
4	5	6	0
7	8	9	#

■ ***Setting Reverse Frequency Function***

When the reverse frequency function is activiated, the transmitting and receiving frequencies can be exchanged. And the CTCSS/DCS encoding and decoding can also be exchanged.

How to operate reverse frequency function:

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

■ ***Working Mode Switch***

Two work modes:VFO(Frequency) mode and MR(Channel) mode. Three different display manners for MR mode.

A. Channel NO. B. Frequency+Channel NO. C. Channel Name

It is available to switch between the frequency mode and the channel mode manually or via the programming software. If you want, you can set the password for the mode switch.

VFO/MR(Frequency/Channel switch) switch is indicated as following:

VFO → MR(Channel NO.) → MR(Frequency+Channel NO.) → MR(Channel Name)

When you set password for switching work mode, press MENU,LCD screen display [------], please input the correct password and press MENU. If inputting the wrong password, the work mode switch can not be workable. Password only can be programmed via wouxun supplied programming software. When the password is made up of full "ZERO", the work mode switch does not require password.

Wire Clone Function

Using wireclone	1.Installing the battery for source transceiver and target transceiver. 2.Powering on target transceiver. 3.Press PF3 of source transceiver, and power on at the same time. 4.Red LED of the source radio flashes, the cloning activates	LED is flashing red during cloning. LED goes out in case of successful cloning. LED glows continuous red in case of cloning failure.
	Target Transceiver	Green indicator is flashing during cloning. Indicator is off when completing cloning.

Description of Functions

How to use the intelligent charger

When the battery power is low, the transceiver will activate voice guide, and prompt "Di" in every 5 seconds.

1. Insert the AC plug into outlet (AC:90-240V), the charger indicator flashes once. That means the charging is in standby.
2. Insert the battery into the charger, the RED indicator continuously flashes. That means the charging is on the progress.
   While the GREEN indicator continuously flashes. That means the charging is complete.

NOTE ⚠

» When inserting the exhausted battery into the charger, it will pre-charge the battery in trickling mode, the RED light of charger flashes and lasts 10-20 minutes, then start normal charger with RED light keeping on, it will turn to GREEN when it is fully charged.

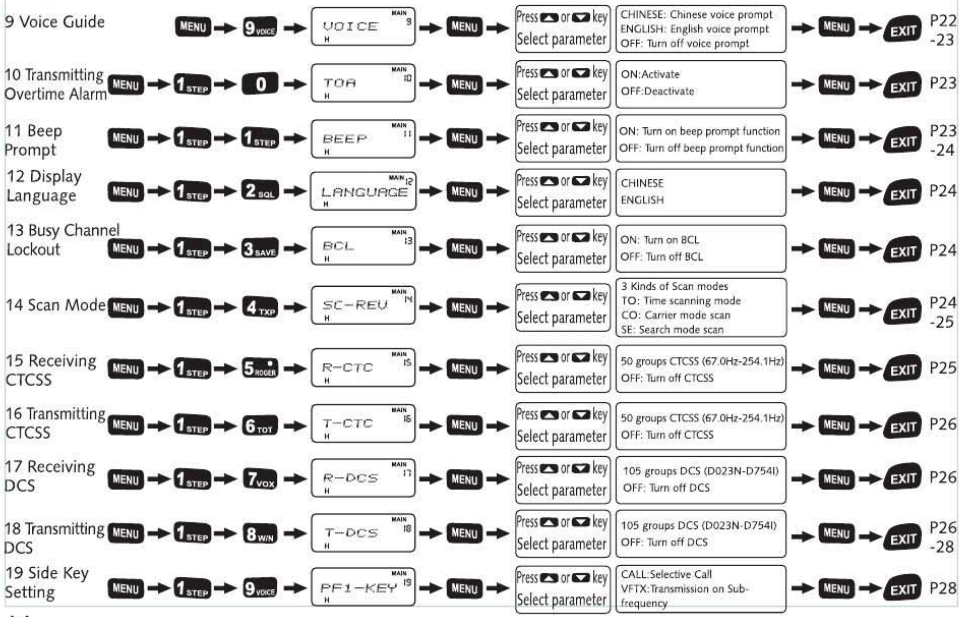
» Trickling charge the exhausted battery is to protect the lithium-ion battery.

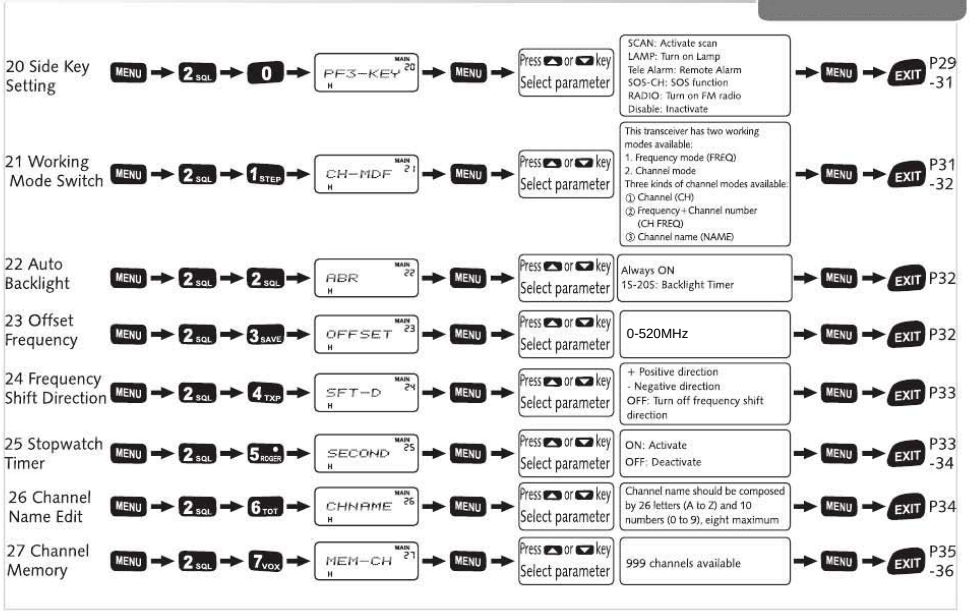
Shortcut Operation Sheet

WOUXUN

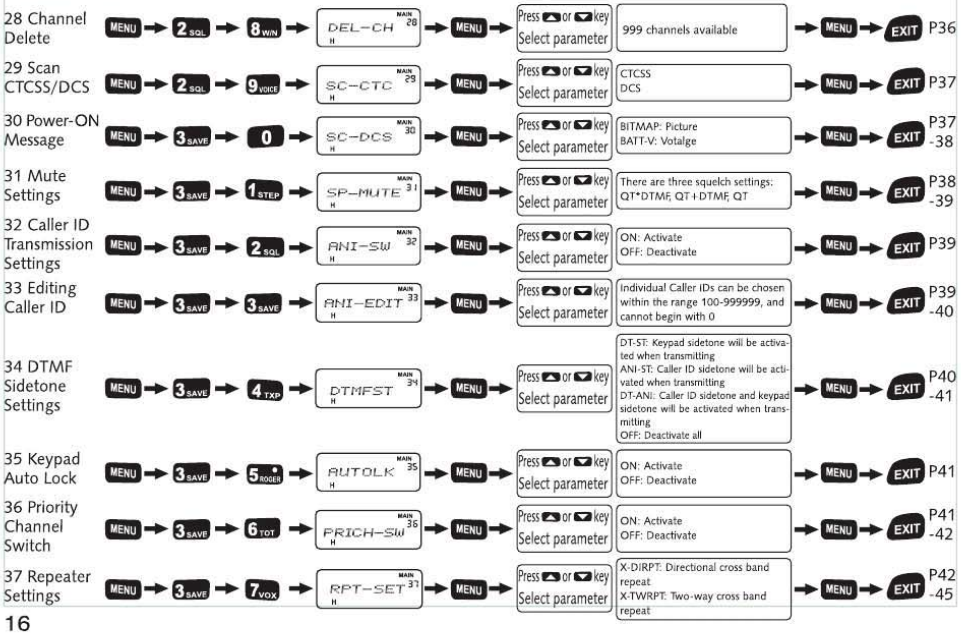
Function order	Function name	Enter function set	Screen display	Select parameter	Selectable parameter explanation	Confirm	Return to standby	See page
1	Step Frequency	MENU → 1 STEP	STEP	MENU	Press ▲ or ▼ key Select parameter	8 frequency steps available: 5k/6.25k/10k/12.5k/50k/ 100k	MENU	EXIT	P19
2	Squelch Level	MENU → 2 SQL	SQL-LE	MENU	Press ▲ or ▼ key Select parameter	Squelch level from 0 to 9	MENU	EXIT	P19 -20
3	Power Saver Mode	MENU → 3 SAVE	SAVE	MENU	Press ▲ or ▼ key Select parameter	ON: Activate OFF: Deactivate	MENU	EXIT	P20
4	Transmitting Power Selection	MENU → 4 TXP	TXP	MENU	Press ▲ or ▼ key Select parameter	H: High power (VHF 5W/UHF 4W) L: Low power (1W)	MENU	EXIT	P20 -21
5	Begin/End Transmitting Prompt	MENU → 5 ROGER	ROGER	MENU	Press ▲ or ▼ key Select parameter	OFF: turn off this function, without any voice prompting. BOT: press PTT, voice prompt when begining transmitting EOT: release PTT, voice prompt when ending transmitting BOTH: press and release PTT, voice prompt	MENU	EXIT	P21
6	Time-out Timer	MENU → 6 TOT	TOT	MENU	Press ▲ or ▼ key Select parameter	TOT has 40 levels in steps of 15 seconds. OFF: Turn off TOT	MENU	EXIT	P21
7	VOX	MENU → 7 VOX	VOX	MENU	Press ▲ or ▼ key Select parameter	VOX has levels from 1 to 9 OFF: Turn off VOX transmission	MENU	EXIT	P22
8	Bandwidth Selection	MENU → 8 W/N	WN	MENU	Press ▲ or ▼ key Select parameter	WIDE: 25KHz NARR: 12.5KHz	MENU	EXIT	P22

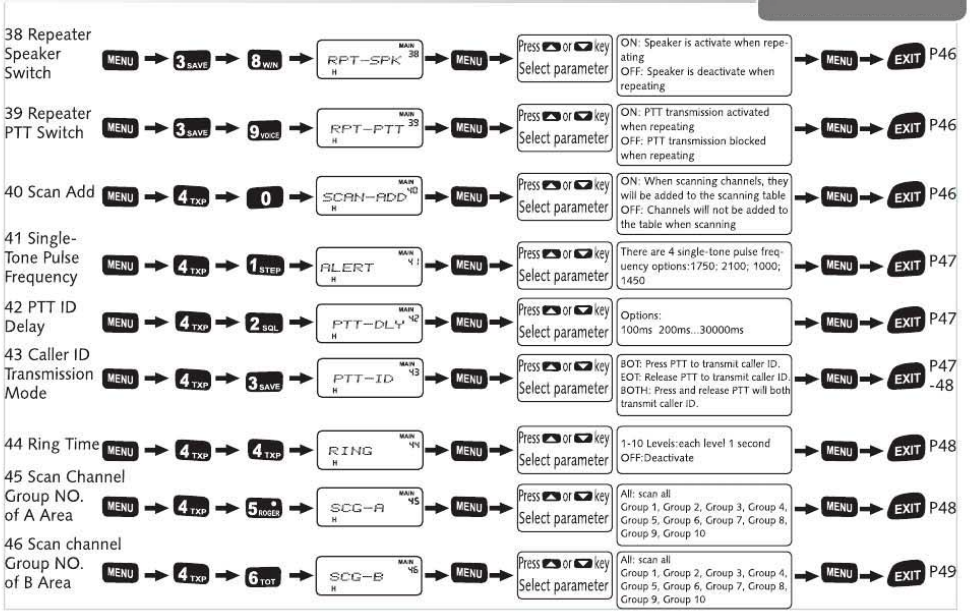
Shortcut Operation Sheet



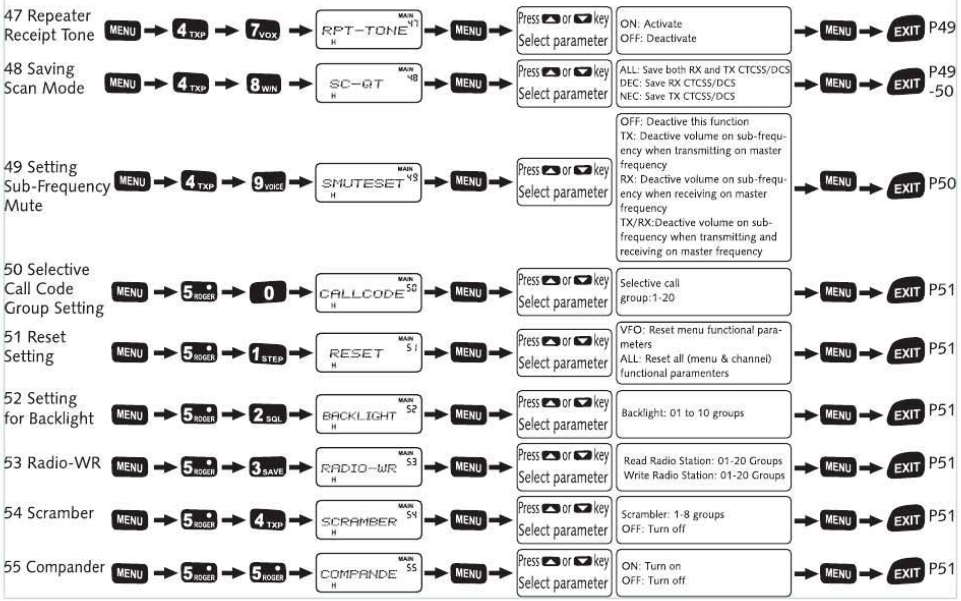


Shortcut Operation Sheet





Shortcut Operation Sheet



How to Operate

Step Frequency (STEP) ----- MENU 1

In standby, press MENU + 1 STEP , the screen displays STEP

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

The frequency steps selectable for this transceiver are as follows:

5.00KHz, 6.25KHz, 10.00KHz, 12.50KHz, 25.00KHz, 50.00KHz and 100KHz.

Squelch Level (SQL-LE) ----- MENU 2

Squelch level is about when the signal is strong enough to turn on the squelch function, and when it is weak enough to turn off. You may hear the voice from the loudspeaker when turning ON the squelch and receiving the same signal from other transceivers. Higher level makes it harder to receive the weak signals, while lower level will be interfered by noises and/or unwanted signals.

In standby, press MENU + 2 SQL , the screen displays SQL-LE

Press MENU to enter, press ▲ / ▼ to select the desired squelch level, then press MENU to confirm, finally press EXIT to return to standby.

NOTE

» The squelch level for this transceiver has 0-9 levels selectable, and level 0 means turn off the squelch function. The higher level of the squelch is set, the stronger receiving signal is needed.

Power Saver Mode (SAVE) --- MENU 3

When the power saver function is ON, the receiver circuit will be cut off for a moment, and then re-activate to detect the signals for a while, in order to reduce the battery capacity consumption.

In standby, press MENU + 3 SAVE , the screen displays 

Press MENU to enter, it shows 'ON', press ▲ / ▼ to select turn ON/OFF the power saver funtion.

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

Transmitting Power Selection (TXP) --- MENU 4

In frequency mode, press MENU + 4 TXP , the screen displays 

Press MENU to enter, it shows 'HIGH', press ▲ / ▼ to select HIGH/LOW power, then press MENU to confirm, finally press EXIT to return to standby.

NOTE This Amateur Radio has HIGH and LOW transmitting power selectable:

»

VHF: HIGH: 5W LOW:1W

UHF: HIGH: 4W LOW:1W

Transmssion Prompt settings (ROGER) --- Menu 5

When the transceiver is standby,press the MENU + 5 keys and the screen will display: 

Press the key to access the menu, and after pressing the ▲ / ▼ keys to choose the required prompt mode, press the MENU key to to confirm, or the EXIT key to retum to standby.

The transceiver features 4 kinds of prompt: BOT (beginning of transmission) , EOT (end of transmission) , BOTH (beginning and end of transmission), and OFF (prompts deactivated).

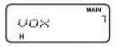
Time-out Timer (TOT) --- MENU 6

This transceiver can be set in 60 levels with 15 seconds each, between 15 and 900 seconds.

In standby, press MENU + 6 TOT , the screen displays 

Press MENU to enter, press ▲ / ▼ to select the desired timer level, then press MENU to confirm, finally press EXIT to return to standby.

VOX (VOX) --- MENU 7

In standby, press MENU + 7 VOX , the screen displays 

Press MENU to enter, press ▲ / ▼ to select VOX level(1-9), then press MENU to confirm, finally press EXIT to return to standby.

NOTE

» The higher level of VOX is set, the higher volume is needed.
» In SCAN and FM radio modes, the VOX function is not available.

Bandwidth Selection (W/N) --- MENU 8

In standby, press MENU + 8 WN , the screen displays 

Press MENU to enter, it shows 'WIDE', press ▲ / ▼ to select WIDE/NARROW bandwidth, then press MENU to confirm, finally press EXIT to return to standby.

There are two bandwidths for option:WIDE:25KHz and NARR:12.5KHz

Voice Guide (VOICE) --- MENU 9

In standby, press MENU + 9 VOICE , the screen displays 

Press MENU to enter, press ▲ / ▼ to select ON or OFF , and then press MENU key to confirm, finally press EXIT to return to standby.

NOTE

» Turn off MENU 9 and MENU 11 at the same time to turn off all the voice prompt if required.

Transmitting Overtime Alarm (TOA) --- MENU 10

In standby, press MENU + 1 STEP 0 , the screen displays 

Press the MENU key to access the menu, and after pressing the ▲ / ▼ keys to select the required time, press the MENU key to confirm, and the EXIT key to return to standby.

TOA has a maximum length of 10seconds, each level corresponding to 1second. OFF: Deactivate TOA.

Special Reminder

» When the transmission exceeds the "Time-out timer" set time, a error tone will prompt, and transmission is stopped automatically.

Beep Prompt Function (BEEP) --- MENU 11

In standby, press MENU + 1 STEP 1 STEP , the screen displays 

Press MENU to enter, press ▲ / ▼ to turn ON/OFF the beep prompt function, then press MENU to confirm, finally press EXIT to return to standby.

Display Language (LANGUAGE) --- MENU 12

In standby, press MENU + 1STEP 2 SQL , the screen display 

Press MENU to access the function, press ▲ / ▼ to select the desired language, and then press MENU to confirm, press EXIT to return to standby mode.

Two Options:CHINESE and ENGLISH

Busy Channel Lockout (BCL) --- MENU 13

In frequency mode, press MENU + 1STEP 3 SAVE , the screen displays 

Press MENU to enter, press ▲ / ▼ to select ON/OFF this function, then press MENU to confirm, finally press EXIT to return to standby.

Note:This function is invalid in cross band repeater or repeater/transmitter modes.

Scan Mode Settings (SC-REV) --- Menu 14

When the transceiver is standby, press the MENU + 1STEP 4 TAP , keys and the screen will display 

Press the MENU key to access the menu, and after pressing the ▲ / ▼ keys to select the required set-

ting, press the MENU key to confirm, and the EXIT key to retum to standby

The transceiver has 3 scan modes:TO,CO,and SE:

TO: after finding a carrier wave signal, scanning will continue if no operations are carrier out within 5 seconds.

CO: scanning will stop when a carrier wave signal has been found,and scanning will continue if the carrier wave signal is lost for 3 seconds.

SE: scanning will stop when a carrier wave signal is found.

NOTE ⚠

» Hold on *SCAN for 2 seconds to access the scan mode.

Receiving CTCSS settings (RX-CTC) --- Menu 15

When the transceiver in standby. press the MENU + 1STEP 5 ROGER keys and the screen will display 

Press the MENU key to access the menu,and after pressing the ▲ / ▼ key to select the CTCSS you desire, press the EXIT key to retum to standby.

The CTCSS has a total of 50 groups, ranging from 67.0 to 254.1HZ. OFF:Deactivate.

Transmitting CTCSS settings (TX-CTC) --- Menu 16

When the transceiver is standby, press the MENU + 1STEP 6TOT keys and the screen will display 

Press the MENU key to access the menu, and after pressing the ▲ / ▼ key to select the CTCSS you desire, press the MENU key to confirm, and press the EXIT key to return to standby.

CTCSS has a total of 5 groups, ranging from 67.0-254.1Hz. OFF: Deactivate

Receiving DCS settings (RX-DCS) --- Menu 17

When the transceiver is standby, press the MENU + 1STEP 7VOX keys and the screen will display 

Press the MENU key to access the menu, and after pressing the ▲ / ▼ key to select the DCS you desire, press the MENU key to confirm, and press the EXIT key to return to standby.

DCS: 105 groups of positive code, 105 groups of negative code, ranging from D023N to D754I.

OFF: Deactivate.

Transmission DCS settings (TX-DCS) --- Menu 18

When the transceiver is standby,press the MENU + 1STEP 8WIN keys and the screen will display 

Press the MENU key to access the menu,and after pressing the ▲ / ▼ key to select the DCS you desire, press the MENU key to confirm, and press the EXIT key to return to standby.

DCS: 105 groups of positive code, 105 groups of negative codes, ranging from D023N to D754I.

OFF:Deactive.

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

DCS (positive code)

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

CALL/VFTX on Side Key 1 (PF1-KEY) --- MENU 19

In standby, press MENU + 1 STEP 9 VOICE kthe screen displays PF1-KEY (MAIN 19)

Press MENU to access the menu, press ▲ / ▼ to select the mode you desire. And then press MENU to confirm, and press EXIT to return to standby.

Two options: CALL(Selective Calls) and VFTX (Transmission on Sub-frequency).

Selective call codes are programmed via Ⓖwouxun supplied software.

SCAN/LAMP/SOS/TeleAlarm/RADIO/DISABLE on Side Key 3 (PF3-KEY) --- MENU 20

In standby, press MENU + 2 SQL 0 the screen displays PF3-KEY (MAIN 20)

Press MENU to access the menu, press ▲ / ▼ to select the function you desire. And then press MENU to confirm, press EXIT to return to standby.

Six options: SCAN,LAMP, SOS, TeleAlarm, RADIO and Disable.

Different operations according to different functions:

SCAN: Activate the scan function:

In standby, press PF3 to access scanning mode.(scan mode can be set via MENU 14-Scan Mode Setting), while press any key to stop scanning.

LAMP: Activate lamp function:

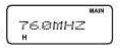
In standby, press PF3 to activate lamp function, while press PF3 again to deactivate.

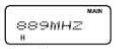
SOS-CH function

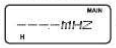
In standby, press PF3, the speaker will prompt alarm after 2 seconds, and the radio will transmit alarm tone.

NOTE ⚠

» Each alarm lasts 10seconds, and after 5 minutes, the alarm will re-activate. Press any key to exit the function.

TeleAlarm: Activate remote alarm function
In standby, press PF3, the speaker will prompt alarm and transmit ANI ID code +numbers "110".
Press PTT key to exit.
RADIO: Activate the FM radio function
A. Activate FM radio:
In standby, press PF3 to activate FM radio. The screen displays 

, press ✱SCAN to access FM radio function to automatically search FM radio. The search will automatically stop when receiving FM radio.
FM radio will be received on the searched frequency.
B. Inputting FM radio Frequency
In FM radio mode, press PF3, the screen display 

, hold on RPT for 2 seconds, the screen displays 

.It is OK to input the FM radio frequency.

C. Exit FM radio
Press PF3 again to exit FM radio function.

NOTE ⚠

» When FM radio is active, current frequency or channel is still in standby. After receiving the signals, the transceiver returns to transceiver communication mode. After the signal disappears for 5seconds, the transceiver returns to FM radio. After 5seconds when pressing PTT key to transmit, the transceiver returns to FM radio automatically.

Working Mode Switch (CH-MDF) --- MENU 21

In standby, press MENU + 2 SQL 1 STEP , the screen display 

Press MENU to enter, press ▲ / ▼, to select mode then press MENU confirm , press EXIT it return to standby.
This transceiver has two options for the working mode:
1. Frequency mode(FREQ)
2. Channel mode
There are three channel display selections in channel mode as follows;
① Channel (CH) ② Frequency+ Channel number (CH FREQ) ③ Channel name (NAME)

NOTE

» The password for the work mode switch is programmed only via the programming software.

» The password is consist of 6 characters, while "000000" means no password needed for the mode switch.

Auto Backlight (ABR) --- MENU 22

In standby , press MENU + 2 SQL 2 SQL , the screen display 

Press MENU to enter, press ▲ / ▼ to select backlight function , then press MENU confirm , press EXIT it return to standby.

Always Activate

1S-20S: Set the lasting time of backlight

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

In standby, press MENU + 2 SQL 3 SAVE and the screen display 

Press MENU to access the menu,press ▲ / ▼ to select the parameter you desire, and then presss MENU to confirm, press EXIT to return to standby.

Offset frequency range:0-599.995MHz, The 7th and 8th frequency point depends on the programmed step frequency.

Frequency Shift Direction (SFT-D) --- MENU 24

In standby, press MENU + 2 SQL 4 TXP , The screen display 

Press MENU to enter, press ▲ / ▼ to select the desired frequency shift direction, then press MENU confirm, press EXIT it return to standby.

There are three selections for the frequency shift direction setting:

1. Plus shift (+), which means that the transmitting frequency is higher than the receiving frequency.
2. Minus shift (-), which means that the transmitting frequency is lower than the receiving frequency.
3. Turn off this function

NOTE

» When offset frequency is out of the allowed offset frequency range, the transceiver can not transmit. In this case, please make sure the offset frequency and receiving frequency is within the allowed range.

Stopwatch Timer (SECOND) --- MENU 25

In standby, press MENU + 2 SQL 5 ROGER , The screen display 

Press MENU to enter, ▲ / ▼ to select ON/OFF , then press MENU confirm, press EXIT to standby.

Using the stopwatch timer:

When this function is ON, press #LOCK to start counting, while press any key to stop working . Press #LOCK again to re-start counting.

NOTE

» Press any key (except #LOCK) when the stopwatch stops working to exit the stopwatch function.

Editing a Channel Name (CH-NAME) --- MENU 26

Channel names can only be edited in channel mode, and only the name of the present channel can be edited this operation is ineffective in frequency mode.

In standby, press MENU + 2 SQL 6 TOT keys and the screen will display 

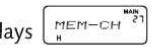
Press MENU to access the menu, and the first digit will flash (which indicates that this digit is being edited). Press ▲ to choose the required character, press ▼ to edit the next character, press MENU to confirm, and then press EXIT to return to standby.

NOTE

» 1.Channel names can be maximum of 8 characters long.

» 2.When all 8 characters are empty, the channel will be displayed on the screen as "NO-NAME!"

Memorize Channel (MEM-CH) --- MENU 27

In channel mode or standby, press MENU + 2 SQL 7 VOX , the screen displays 

Press MENU to access the menu, press ▲ / ▼ to select the desired channel order, and then press MENU to memorize with a voice prompt. Press EXIT to return to standby.

When the transceiver is in channel(MR) mode, the parameters(except channel name and scan adding) will be memorized into the channel.

When the transceiver is in frequency(VFO) mode, you can program all the parameters(frequency, offset, offset directions etc.) into the channel to memorize.

Example:

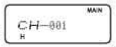
Memorize the parameters: "Receiving frequency 450.025MHz, receiving CTCSS is 67.0Hz, transmission frequency is 460.025MHz" into the Channel NO.10.

1.Inputting 450.025MHz to the transceiver in frequency(VFO)mode, press MENU + 1 STEP 5 ROGER to access receiving CTCSS/DCS setting, press ▲ / ▼ to select 67.0Hz, press MENU to confirm.

2.Press MENU + 2 SQL 3 SAVE to select the offset frequency is 10.000MHz, press MENU + 2 SQL 4 TXP to set the frequency direction as "+".

3.Press MENU + 2 SQL 7 VOX to access channel memory, select CH-010 and press MENU to memorize the channel

and return to standby.

In standby, press MENU + 2 SQL 7 VOX to access channel memory, the screen displays 

, input the desired channel number orderly, and then press MENU to confirm.

NOTE ⚠

» When the selected channel is empty (without any parameter), the characters of the channel number is blue, while the selected channel is with the memorized parameters, the characters of the channel number is dark red.

Deleting a channel (DEL-CH) --- MENU 28

In standby, press MENU + 2 SQL 8 WIN , the screen will display 

Press MENU to access the menu, press ▲ / ▼ to select the channel you wish to delete or manually inputting the channel number, press MENU to confirm and the EXIT key to return to standby.

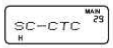
Special Reminder ⚠

» 1st channel can not be deleted.

» When the selected channel is empty (without any parameter), the characters of the channel number is blue, while the selected channel is with the memorized parameters, the characters of the channel number is dark red.

CTCSS scanning (SCN-CTC) --- MENU 29

This function is scanning the programmed frequencies or channels with CTCSS/DCS or not. When the CTCSS/DCS are not compatible with the one you are going to communicate with, it stops the regular communication.

In standby, press MENU + 2 SQL 9 VOICE , screen displays 

Select CTCSS or DCS, then Press MENU to confirm and start the scan.

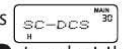
Special Reminder ⚠

» if there is no carrier received on the scanned frequencies or channels, the function is not activated.

» pls use the ▲ / ▼ to change the direction for scanning.

» it stopes on the frequency or channel which is programmed with CTCSS/DCS, pls press MENU to save by yourself if needed. Pls press * SCAN to continue to scan the next frequencies or channels if not needed.

Power-ON Message(PONMSG)-----MENU 30

In Standby, press MENU + 3 SAVE 0 , the screen displays 

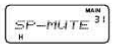
Press MENU to enter the function, then press ▲ / ▼ to select the parameter and then MENU to confirm,

while press EXIT to return back to the standby.

BITMAP: Picture

BATT-V: Voltage

Mute settings (SP-MUTE) --- MENU 31

In standby, press MENU + 3 SAVE 1 STEP , the screen displays 

Press MENU to access the menu, and after pressing ▲ / ▼ to choose the required mute mode, press MENU to confirm, and press EXIT to return to standby.

Squelch settings: set the conditions which determine when the speaker shall be turned on, these settings are used during selective calls, group calls and all calls.

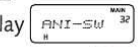
The transceiver's mute mode include:

QT: When the transceiver is set to this mode, all signals on the same QT frequency will activate the speaker.

QT+DTMF: only those signals which both satisfy the requirements of QT and whose DTMF carrier wave signal also match the transceiver will activate the speaker in this mode.

QT*DTMF: When this mode is active, only those signals which either meet QT requirements or DTMF requirements will activate the speaker.

Caller ID Code Switch (ANI-SW) --- MENU 32

In frequency mode, press MENU + 3 SAVE 2 SQL , The screen display 

Press MENU to enter, press ▲ / ▼ to select turn ON/OFF, and press MENU to confirm, press EXIT it return to standby.

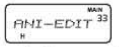
Editing Caller ID Code (ANI-EDIT) --- MENU 33

The transceiver's Caller ID code is composed of the arabic numerals 0-9: the first digit cannot be 0, and ID numbers can be as short as 3 digits and as long as 6.

In standby, press MENU + 3 SAVE 3 SAVE , the screen displays 

Press MENU to access the menu, and after inputting the required numbers, press MENU to confirm, and EXIT key to return to standby.

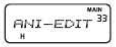
Example 1:editing a 6-digit ANI ID code(123456).

In standby, press MENU + 3 SAVE 3 SAVE , the screen displays 

After pressing MENU key, the first digit will flash, then input the required value 123456.

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

Example 2:editing a 3-digit Caller ID code(123)

In standby, press MENU + 3 SAVE 3 SAVE , the screen displays 

After pressing MENU, if a Caller ID code has been already input, it will be displayed, and the first digit will flash. If no Caller ID code has been input, 101 will be displayed, and the first digit will flash. Input 123 at the same time, press MENU to confirm, press EXIT to return to standby.

Special Reminder ⚠

» Each transceiver can have only one ANI ID code, which is shared by Area A and B.

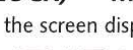
DTMF Sidetone (DTMF-ST) --- MEUN 34

In frequency mode, press MENU + 3 SAVE 4 TXP , The screen display 

Press MENU to enter, press ▲ / ▼ to select the required sidetone mode, and press MENU to confirm, press EXIT it return to standby.

The transceiver has the following DTMF modes: 1. DT-ST: Keypad sidetone will be activated when transmitting; 2. ANI-ST: ANI ID code sidetone will be activated when transmitting; 3. DT+ANI: keypad and caller ID sidetone are both activated when transmitting. OFF: Deactivate sidetone function.

Keypad Autolock (AUTOLOCK) --- MENU 35

In standby, press MENU + 3 SAVE 5 KEYLOCK , the screen displays 

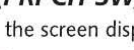
Press MENU to access the menu, press ▲ / ▼ to select ON(Activate)/OFF(Deactivate), and then press MENU to confirm, press EXIT to return to standby.

After activating keypad autolock function, the keypad will be locked automatically without any operation in 15seconds. Hold on #LOCK for 2seconds to unlock the keypad.

NOTE ⚠

» Manually lock:In standby, hold on #LOCK for 2seconds to lock the keypad, hold on #LOCK for 2 seconds again to unlock the keypad.

Priority Channel Switch (PRI CH-SW) --- MENU 36

In standby, press MENU + 3 SAVE 6 TOT , the screen display 

Press MENU to access, press ▲ / ▼ to select ON/OFF. And then press MENU to confirm, and press EXIT to return to standby

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. Set CH1, CH2, CH3, and CH4 and CH5 as the common scanned channels and CH6 as the priority scanned channels. Then the scanning order is as followings:

→CH1→CH6→CH2→CH6→CH3→CH6→CH4→CH6→CH5→CH6

When this transceiver detects signal on the priority channel during scanning, it will on its frequency. Please program the priority channel via KG-UV8E programming software.

Repeater Setting (RPT-SET) --- MENU 37

This transceiver has 2 repeater setting available:

1.X-DIRPT:Directional cross-band repeater mode

2.X-TWRPT:Two way cross-band repeater mode

Special Reminder ⚠

» In cross-band repeater mode, if the channel or frequency set the reverse frequency, offset frequency, or offset direction, its transmitting frequency would out of the transceiver's frequency, then it will not transmit.

Master frequency and sub frequency for repeater should be on different bands. (For example, master frequency is programmed on VHF band, and the sub frequency should be programmed on UHF band, and vice versa.)

X-DIRPT (Directional cross-band repeater): The master VFO's receiving frequency is the cross-band receiver's receiving frequency, and the sub VFO's transmitting frequency is the cross-band transmitter's transmitting frequency.

X-TWRPT (Two way cross-band repeater): In standby, both the master and secondary VFO's are receivers, whichever VFO receives an effective carrier-wave signal, the other VFO will be the transmitter and start transmitting. The transmitter and receiver is unfixed under two way cross-band repeater mode. The first received VFO is receiver and relatively the other one is transmitter.

After accessing cross-band repeater mode, the operation of receiving /transmission frequencies, CTCSS/DCS encoding& decoding are the same as the transceiver is in transceiver

communication mode.

Example:

A. Before accessing cross-band repeater mode, A area is in channel mode.The receiving frequency and CTCSS/DCS in cross-band repeater mode are the same with the channel in standby.
After B area receives the effective signal, A area starts transmission. The transmitting frequency and CTCSS/DCS in cross-band repeater mode are the same with the channel in A area.
If setting reverse frequency function, the transmission&receiving frequencies and CTCSS/DCS will be reverted.

B. Before accessing cross-band repeater mode, A area is in frequency mode.The receiving frequency and CTCSS/DCS in cross-band repeater mode are the same with the setting in standby.
After B area receives the effective signal, A area starts transmission. The receiving frequency and CTCSS/DCS in cross-band repeater mode are the same with the channel in A area.
If setting reverse frequency function, the transmission&receiving frequencies and CTCSS/DCS will be reverted.

To select if you will open speaker for the receiver in cross-band repeater via MENU38 (RPT-SPK) ,and if you would like to hold on PTT key to transmit in repeater mode via MENU39 (RPT-PTT). But if you press PTT key to transmit, the transceiver exits the repeater mode temporarily.

In standby, press MENU + 3 SAVE 7 VOX the screen displays RPT-SET

Press MENU, press ▲ / ▼ to select the mode you desire, and then press MENU again.

Special Reminder ⚠

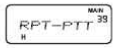
- In cross-band repeater mode, the screen will display .
- Switching transceiver communication and repeater modes via RPT . In standby, hold on RPT for 2 seconds to switch the modes.
- In order to use the repeating well, there is the Repeating Receipt Tone which is set by MENU 47. The repeating receipt tone timely and effectively reports the working status and increases the efficiency of repeating.
- The Repeating Hold Timer is used for avoiding to press or release PTT too frequently in order to read out the message. When the receiver was released PTT, the hold time is able for the equipment keeping transmitting for a while during waiting for response. If there is no efficient QT/DQT detected within the hold time, then the transmitter will release PTT. The repeating hold timer is setting the hold time for the transmitter to keep transmitting after the QT/QDT receiving signal disappears. The function is programmable by Wouxun supplied software.

Repeater Speaker (RPT-SPK) --- MENU 38

In standby, press MENU + 3 SAVE 8 WIN , the screen display 

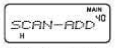
Press MENU to access, press ▲ / ▼ to select ON/OFF. And then press MENU to confirm, and press EXIT to return to standby.

Repeater PTT (RPT-PTT) --- MENU 39

In standby, press MENU + 3 SAVE 9 VOICE , the screen display 

Press MENU to access, press ▲ / ▼ to select ON/OFF. And then press MENU to confirm, and press EXIT to return to standby.

Scan Add (SCAN-ADD) --- MENU 40

This function means whether a channel in scanning when in the startup channel scanning, so the function can be set only in the channel mode under the current channel, is invalid in frequency mode.
In standby, press MENU + 4 TXP 0 , the screen display 

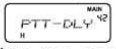
Press MENU to access, press ▲ / ▼ to select ON/OFF. And then press MENU to confirm, and press EXIT to return to standby.
Note:The function is invalid in cross-band repeater or repeater/transmitter mode.

Single-Tone Pulse Frequency (ALERT) --- MENU 41

Some of the relay systems used for single-tone pulse transmission need a single-tone pulse signal to activate, if a repeater is already active, however, this signal is not needed. The following pulse signal frequencies can be selected: 1750Hz, 2100Hz, 1000Hz and 1450Hz.
In standby, press MENU + 4 TXP 1 STEP , the screen displays 

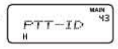
Press MENU to access, press ▲ / ▼ to select the parameter you desire and then press MENU to confirm, press EXIT to return to standby.
In transmission mode, press PF2 to transmit the selected single-tone pulse frequency.

Caller ID Code Transmitting Delay (PTT- DLY) --- MENU 42

Is standby, press MENU + 4 TXP 2 SQL , the screen display 

Press MENU to access, press ▲ / ▼ to select the time you want. And then press MENU to confirm, and press EXIT to return to standby.
This delay time can be set 100~3000ms, total 30 levels with 100ms each.

Caller ID Transmission Mode (PTT-ID) --- MENU 43

In standby, press MENU + 4 TXP 3 SAVE , the screen display 

Press MENU to access, press ▲ / ▼ to select the mode you want. And then press MENU to confirm, and press EXIT to return to standby.

This can be set three methods, BOT (begin), EOT (end), BOTH (begin /end).

Ring Time --- MENU 44

In standby, press MENU + 4 TXP 4 TXP , the screen display 

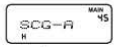
Press MENU to access, press ▲ / ▼ to select the parameter you want. And then press to confirm, and press EXIT to return to standby.

This ring time can be set 10 seconds, total 10 levels with 1 second. OFF:Deactivate the function.

Scan group A setting (SCG-A) --- MENU 45

The scan group settings are the way that a transceiver can divide the programming channels into different scan groups. It will scan all channels in Group A.

Scan group settings are: ALL channel, as well as 1-10 individual scanning groups.

In standby, press MENU + 4 TXP 5 RCALL , the screen displays 

Press ▲ / ▼ to press MENU to confirm, press EXIT to return.

Note:Scanning group A setting is active in A area.

Scan Group B Setting (SCG-A) --- MENU 46

The scan group settings are the way that a transceiver can divide the programming channels into different scan groups. It will scan all channels in Group B.

Scan group settings are: ALL channel, as well as 1-10 individual scanning groups.

In standby, press MENU + 4 TXP 6 TOT , the screen displays 

Press ▲ / ▼ to press MENU to confirm, press EXIT to return.

Note:Scanning group B setting is active in B area.

Repeater Tone Setting (RPT-TONE) --- MENU 47

In standby, press MENU + 4 TXP 7 VOX , the screen display 

Press MENU to access, press ▲ / ▼ to select the parameter,. And then press MENU to confirm, and press EXIT to return to standby.

ON: Activate the function

OFF: Deactivate the function

Saving Scanned CTCSS/DCS (SC-QT) --- MENU 48

When the transceiver is in CTCSS/DCS scanning, there are 3 saving types to save the detected CTCSS/