### Offset frequency settings (OFF-SET) - Menu 4

When the transceiver is standby, press the webs and the screen will display: GRF-SET

Press the MENU key to access the menu, and the screen will display: -@@.@@@@@@

And the first digit will simultaneously flash, after inputting the required offset frequency or pressing the \(\times\) keys to increase or reduce the offset frequency, press the \(\times\) key to confirm, and press the \(\times\) key to return to standby.

The transceiver's frequency range is from 0-599.99500MHz, and the KHz of input offset frequency will be automatically confirmed by step frequency. This function can be prohibited while the vehicle transceiver is in cross-band repeater or repeater receiver or repeater transmitter mode.

### Transmssion prompt settings (ROGER) - Menu 5

When the transceiver is standby, press the webs and the screen will display: ROGER (SS)

Press the key to access the menu, and after pressing the / / keys to choose the required prompt mode, press the key to confirm, or the exit key to return 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).

ROGER Dual tone prompt method, can be set through the supplied programming software. It can be set through (at most 6 digit number) as well as remaining mode or in intervals. (See programming software for help)

### Beep prompt settings (BEEP) - Menu 6

When the transceiver is standby, press the MEND + LEGAL keys and the screen will display: REEP OFF

Press the key to access the menu, and after pressing the 🔼 / 🔽 keys to choose the required voice prompt to confirm, press the key to return to standby mode.

The transceiver has 2 Beep Prompt modes: ON or OFF

### Voice prompt settings (VOICE) - Menu 7

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

Press the MENU key to access the menu, and after pressing the 🔼 / 🔽 keys to choose the required prompt mode, press the MENU key to confirm,



or the key to return to standby.

This transceiver has 3 voice prompt settings: CHINESE, ENGLISH, and OFF.

## Special Reminder <u></u>

>> If you need to turn all prompts off, you must turn off both the setting of voice prompt (Menu 7) and the beep prompt (Menu 6).

### Busy channel lock-out (BCL) - Menu 8

When the transceiver is standby, press the MEND + M

Press when the key to access the menu, and after pressing the \(\times\)/\(\times\) keys to choose the required prompt mode, press the key to confirm, or the \(\times\) key to return to standby.

The transceiver has 2 BCL modes: ON (activate) and OFF (deactivate).

### Mute settings (SP-MUTE) - Menu 9

When the transceiver is standby, press the webs and the screen will display: SP-MUTE COS

Press with the key to access the menu, and after pressing the \(\bigcap / \) keys to choose the required prompt mode, press the \(\text{MENU}\) key to confirm, or the \(\text{EXIT}\) key to return to standby.

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

The Transceiver's mute mode include:

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

QT+DTMF: only those signals which both satisfy the requirements of CTCSS mode and whose dual-tone multi-frequency 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.

A. Used in All call: Press PTT to transmit, after send out the transceiver's ID code, press 🔊 + 📆

B. Used in Group call: Press PTT to transmit, after send out the transceiver's ID code, press [Group Number] + 💩 + 🚜

**Note:** Group number refers to the first digit ID code. If some transceivers with the same first digit ID code, then they are in the same group. The first digit can be set from 1-9, means there are 9 groups maximum. See the detailed instructions on MENU 15 (ANI-EDIT).

C. Used in Selective call: Press PTT to transmit, after send out the transceiver's ID code, input the specified selective call's ID code.

### Scan mode settings (SC-REV) - Menu 10

When the transceiver is standby, press the web + the keys and the screen will display: Standby, press the web + the keys and the screen will display:

Press the wew key to access the menu, and after pressing the keys to select the required setting, press the key to confirm, and the

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

TO: after finding a carrier wave signal, scanning will continue if no operations are carried 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.

## **Special Reminder** $\triangle$

- » This function is prohibited if the transceiver is in Cross-band repeat or Repeater relay or Repeater transmitter mode.
- » If you prefer to ignore the CTCSS/DCS settings when scanning frequency/channel, please set 'SCAN-DET (Scanning CTCSS/DCS detection)' OFF via programming software under the configuration settings column.

### Transmission time-out timer (TOT) - Menu 11

When the transceiver is standby, press the MEND + LAND keys and the screen will display:

Press the wear key to access the menu, and after pressing the \( \text{\text{N}} \) keys to select the required time, press the \( \text{\text{key}} \) key to confirm, and the \( \text{\text{R}} \) key to return to standby.

The TOT can be set for up to 60 minutes, 1 level of the setting corresponding to 1 minute.

Transmission overtime alarm (TOA) - Menu 12



When the transceiver is standby, press the MENU + 1 keys and the screen will display: TOH SIR

Press the key to access the menu, and after pressing the \(\times\) keys to select the required time, press the key to confirm, and the key to return to standby.

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

## **Special Reminder** $\triangle$

>> When the transmission time exceeds the "Time-out timer" set time, a continuous error tone will prompt, release the [PTT] key to stop it. The transmission function will be stopped for 10 seconds and it can not transmit by pressing the [PTT] key, simultaneously a double tone will prompt. After 10 seconds, the transmission function will be restored (Transmission time-out punishment).

### Caller ID transmission settings (ANI-SW) - Menu 13

When the transceiver is standby, press the went + who + who have and the screen will display: Fig. 1941-Stu 312

Press the key to access the menu, and after pressing the keys to select the required setting, press the key to confirm, and the key to return to standby.

Caller ID transmission: ON activate, OFF deactivate.

#### Ring time (RING) - Menu 14

When the transceiver is standby, press the wew + 1 keys and the screen will display:

Press the MEND key to access the menu, and after pressing the A / V keys to select the required time, press the MEND key to confirm, and the EXIT key to return to standby.

The transceiver has 10 levels of ring time, each corresponding to 1 second. OFF: ring deactivated.

### Editing caller ID (ANI-EDIT) - Menu 15

The transceiver's caller ID 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.

When the transceiver is standby, press the WEND + 15 keys and the screen will display: ANI-EDIT

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

Example 1: editing a 6-digit caller ID number (901285)

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

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

Press the MEND key to confirm, and press the EXIT key to return to standby.

Example 2: editing a 3-digit caller ID number (901)

When the transceiver is standby, press the wend + the screen will display:

After pressing went the key, if a caller ID number has already been input, it will be displayed, and the first digit will flash. If no caller ID number has been input, 101 will be displayed, and the first digit will flash, input , and after the third digit has been input, the symbol "<" will flash in the 4th digit, press the went key to confirm, and the will to return to standby.

## Special Reminder <u></u>

>> Each transceiver can have only one caller ID number, which is shared by Areas A and B.

### DTMF sidetone settings (DTMFST) - Menu 16

When the transceiver is standby, press the MENU + 10 + 10 keys and the screen will display: FITHEST CHE

Press the weather key to access the menu, and after pressing the / / keys to select the required setting, press the key to confirm, and the

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

### Caller ID transmission mode (PTT-ID)- Menu 17

When the transceiver is standby, press the MENU + 11 keys and the screen will display:

Press the Menu key to access the menu, and after pressing the 🔼 / 💟 keys to select the required setting, press the Menu key to confirm, and the



key to return to standby.

The transceiver features 3 kinds of ID transmission: BOT (beginning of transmission), EOT (end of transmission), BOTH (beginning and end of transmission).

### Transmission backlight (TX-LED)- Menu 18

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

Press the went to access the menu, and after pressing the keys to select the required backlight color, press the key to confirm, and the key to return to standby.

The transceiver has 3 backlight colors: BLUE; GREEN; WHITE; OFF: Deactivate.

#### Standby backlight (WT-LED) - Menu 19

When the transceiver is standby, press the MENU + 100 keys and the screen will display: WIT-LED CIS

Press the MEND key to access the menu, and after pressing the keys to select the required backlight color, press the MEND key to confirm, and the key to return to standby.

The transceiver has 3 backlight colors: BLUE; GREEN; WHITE; OFF: Deactivate.

### Receiving backlight (RX-LED) - Menu 20

When the transceiver is standby, press the wear + 22 + seem keys and the screen will display:

Press the went to access the menu, and after pressing the \( \)/ \( \) keys to select the required backlight color, press the went to confirm, and the \( \) key to return to standby.

The transceiver has 3 backlight colors: BLUE; GREEN; WHITE; OFF: Deactivate.

### Deleting a channel (DEL-CH) - Menu 21

When the transceiver is standby, press the MEND + 12 + 18ND keys and the screen will display:

Press the went key to access the menu, and after pressing the \( \ldots \) to select the channel you wish to delete or manually inputting the channel code, press the \( \text{MEND} \) key to confirm and the \( \text{MEND} \) key to return to standby.

# **Special Reminder** $\triangle$

>> The 1st, 2nd and the Priority Channels are fixed channels and cannot be deleted.

### Editing a channel name (CH-NAME) - Menu 22

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.

When the transceiver is standby, press the wend + 2 keys and the screen will display: EH-HAME

Press the wend key to access the menu, and the first digit will flash (which indicates that this digit is being edited)

Press the # key to switch character sets (this switches between special characters, upper-case letters, lower-case letters, and numbers), press the key to choose the required character, press to edit the next character, and press to clear the character you are currently editing. When you have finished editing the name, press to confirm, and press to exit the editing screen.

Note: 1. Channel names can be a maximum of 8 characters long, and the first character may not be 0.

- 2. When all 8 characters are empty, the channel will be displayed on the screen as CH-\*\*\* (\*\*\* being the current channel number).
- 3. This function will be prohibited if the other area in scanning mode or the transceiver is not working in radio mode.

#### Priority channel switch (PRICH-SW) - Menu 23

When the transceiver is standby, press the went + 2 + 3 keys and the screen will display: REICH-SW

Press the MEND key to access the settings, and after pressing the A / V key to activate or deactivate the speaker, press the MEND to confirm, and press the EXIT key to return to standby

The priority channel switch can be set to ON or OFF.

# Special Reminder <u></u>

>> While in frequency mode or channel mode, you only need to turn on the priority channel, and the priority channel will scan in 3 second intervals. The priority channel is only used for receiving, if you need to transmit, please set the priority channel as the present channel.



## Special Reminder <u></u>

- >> If the master frequency is in Area A, the priority channel can be set as any band and can receive, while if the master frequency is Area B, the priority channel can only be set as UHF or VHF, if set other bands then cannot receive. Example, if the priority channel is 50MHz band, then it can be only in A area can receive, if in Area B, cannot receive.
- >> This function will be prohibited if the transceiver is not working in radio mode.

#### Speaker settings (SPK-CONT) - Menu 24

When the transceiver is standby, press the MEND + 2 + 4 Keys and the screen will display: FRK-CONT

Press the key to access the menu, and after pressing the / / keys to select the desired setting, press the key to confirm, and press the xiii key to return to standby.

There are 3 speakers on the transceiver, 2 are for the transceiver that is separated by Area A/B and 1 is for hand microphone. You can activate the hand microphone as the only one speaker. You can also both activate the transceiver and hand microphone.

SPK1: only the transceiver unit speaker is activate.

SPK2: only the hand microphone is activate.

SPK1+2: the transceiver-mounted speaker and the hand microphone are both activate.

### Keypad autolock (AUTOLOCK) - Menu 25

When the transceiver is standby, press the WEND + 1 keys and the screen will display: HUTOLOCK

Press the well key to access the menu, and after pressing the / / keys to select the desired setting, press the well key to confirm, and press the exit key to return to standby.

### Receiving CTCSS settings (RX-CTC) - Menu 26

When the transceiver is standby, press the MEND + 2 + 15 keys and the screen will display:

Press the New to access the menu, and after pressing the \( \to \) key to select the CTCSS you desire, press the \( \text{MENU} \) key to confirm, and

press the key to return to standby.

Standard CTCSS: 50 groups; Non-standard CTCSS: 65.0Hz-255.0Hz; OFF: Deactivate.

### Receiving DCS settings (RX-DCS) - Menu 27

When the transceiver is standby, press the well + 12 + 12 keys and the screen will display:

Press the key to access the menu, and after pressing the key to select the DCS you desire, press the key to confirm, and press the key to return to standby.

Standard negative & positive DCS: 105 groups; Non-standard DCS: D000N-D766I; OFF: Deactivate.

### Transmitting CTCSS settings (TX-CTC) - Menu 28

When the transceiver is standby, press the MEND + 12 + 13 keys and the screen will display: FX-CTC CREE

Press the MEND key to access the menu, and after pressing the \(\times\) / \(\times\) key to select the CTCSS you desire, press the \(\times\) key to confirm, and press the \(\times\) key to return to standby.

Standard CTCSS: 50 groups; Non-standard CTCSS: 65.0Hz-255.0Hz; OFF: Deactivate.

### Transmitting DCS settings (TX-DCS) - Menu 29

Press the MENU key to access the menu, and after pressing the \( \to \) key to select the DCS you desire, press the \( \text{MENU} \) key to confirm, and press the \( \text{exit} \) key to return to standby.

Standard negative & positive DCS: 105 groups; Non-standard DCS: D000N-D766I; OFF: Deactivate.

#### How to set the Non-standard CTCSS

- 1. The non-standard CTCSS code is from 65.0-255.0Hz
- 2. The minimum spacing is 0.1Hz

After in CTCSS setting, press the desired CTCSS code via the keyboard and then press with to confirm.

Example: Set the receiving CTCSS as 100.5Hz

In standby, press MENU + 122 + 155 , the screen will display: RX-CTC PRI PRINT , and input 1 + 12 + 15 , then press MENU to



confirm, and press or to return to standby.

#### How to set the Non-standard DCS

- 1. The non-standard DCS code is from 000-766 except any code with 8 or 9 number. (Such as 680.719 is not the legal non-standard DCS code)
- 2. After set the non-standard DCS code, you can press 👪 to select the Positive or Negative code, press 🔊 to select off.

After in DCS setting, press the desired DCS code via the keyboard and then press to select the Positive or Negative code, and then press to confirm.

Example 1: Set the receiving DCS as D105N

In standby, press (MEND) + (2) + (3), the screen will display: (RX-DCS) , press (MEND), and input (1) + (2) + (3), then press (b) to select the Positive code, now the screen will display D105N. Press (MEND) to confirm, and then press (EXT) to return to standby.

Example 2: Set the receiving DCS as D105I

In standby, press MEND + 🚜 + 🦪 , the screen will display: [RX-DCS 22] , press MEND , and input 🚮 + 🚳 + 🐧 , then press 🎉 to select the

Negative code, now the screen will display D105I. Press (MEN) to confirm, and then press (EXIT) to return to standby.

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

DC	DCS (positive code)								$\overline{}$				
1	D023N	16	D074N	31	D165N	46	D261N	61	D356N	76	D462N	91	D627N
2	D025N	17	D114N	32	D172N	47	D263N	62	D364N	77	D464N	92	D631N
3	D026N	18	D115N	33	D174N	48	D265N	63	D365N	78	D465N	93	D632N
4	D031N	19	D116N	34	D205N	49	D266N	64	D371N	79	D466N	94	D645N
5	D032N	20	D122N	35	D212N	50	D271N	65	D411N	80	D503N	95	D654N
6	D036N	21	D125N	36	D223N	51	D274N	66	D412N	81	D506N	96	D662N
7	D043N	22	D131N	37	D225N	52	D306N	67	D413N	82	D516N	97	D664N
8	D047N	23	D132N	38	D226N	53	D311N	68	D423N	83	D523N	98	D703N
9	D051N	24	D134N	39	D243N	54	D315N	69	D431N	84	D526N	99	D712N
10	D053N	25	D143N	40	D244N	55	D325N	70	D432N	85	D532N	100	D723N
11	D054N	26	D145N	41	D245N	56	D331N	71	D445N	86	D546N	101	D731N
12	D065N	27	D152N	42	D246N	57	D332N	72	D446N	87	D565N	102	D732N
13	D071N	28	D155N	43	D251N	58	D343N	73	D452N	88	D606N	103	D734N
14	D072N	29	D156N	44	D252N	59	D346N	74	D454N	89	D612N	104	D743N
15	D073N	30	D162N	45	D255N	60	D351N	75	D455N	90	D624N	105	D754N

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# NOTE <u>∧</u>

>> The difference of the negative and positive code is the last letter (I for negative, N for positive). E.g.: D023N, D025N... is the positive code, see the upper right chart, while D023I, D025I... is the negative code.

### Repeater speaker switch (RPT-SPK) - Menu 30

When the transceiver is standby, press the will display: RET-SPK keys and the screen will display:

Press the key to access the settings, and after pressing the / key to activate (ON) or deactivate (OFF) the speaker, press the key to confirm, and press the key to return to standby.

### Repeater PTT switch (RPT-PTT)- Menu 31

When the transceiver is standby, press the MENU + 1 keys and the screen will display: RET - PTT 831

Press the key to access the settings, and after pressing the key to activate (ON) or deactivate (OFF) the PTT transmission, press the to confirm, and press the key to return to standby.

### Repeater settings (RPT-SET) - Menu 32

This transceiver has 5 settings available.

- 1. RADIO: Normal transceiveris communication mode
- 2. X-DIRPT: Directional cross-band repeater mode

Note: The master frequency area defines as the cross-band receiver (only for receiving), and the secondary frequency area as the cross-band transmitter (only for transmitting).

Example: The master frequency area A is 150MHz, the secondary frequency area B is 430MHz, the area A receiving signal (Area B cannot receive any signal under X-DIRPT mode), the secondary frequency area B will automatically activate the transmitting work and transmit the 430 MHz frequency.

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

Note: In standby, both master and secondary areas are receiver, whichever area receives an effective carrier wave signal, the other area will be



the transmitter and start transmitting. The transmitter and receiver is unfixed under two way cross-band repeater model. The first received area is receiver and relatively the other one is transmitter.

Example: The master frequency area A is 150MHz, the secondary frequency area B is 430MHz, if area A receiving signal in advance then Area B will transmit, if area B receiving signal in advance then Area A will transmit, if area B receiving signal in advance then Area A will transmit. It means the different frequencies cross-band repeater.

4. RPT-RX: Repeater receiving mode (Repeater receiver, only can be used when combining two transceivers as a repeater)

Note: The master frequency area defines as the repeater receiver (only for receiving)

5. T-W RPT: Two-way cross-band relay mode (Repeater transceiver, only can be used when combining two transceivers as a repeater)

Note: The master frequency area can be defined as transmitter or receiver, it can transmit or receive accordingly.

## Special Reminder <u></u>

- In Directional cross-band repeater mode (X-DIRPT), Two-way cross-band repeater mode (X-TWRPT) or Two-way cross-band relay mode (T-W RPT), if the channel or frequency set the reverse frequency, offset frequency, or frequency shift direction, its transmitting frequency would out of the transceiver's frequency range, then it will not transmit.
- » In cross-band repeater mode, the two channels/frequencies must be two different bands (UV or VU). E.g. the receiving frequency is UHF in Area A, while transmitting frequency must be VHF in Area B, vice verse.
- >>> Repeater receiver (RPT-RX) and Repeater transceiver (T-W RPT) can be combined as a directional cross-band repeater, while combining two Repeater transceivers (T-W RPT) can be set as a two-way repeater.

You can select whether the speaker will be on or not, and whether the PTT is available for transmitting during the Cross-band repeater or repeater RX/TX mode via MENU 30 (RPT-SPK) and MENU 31 (RPT-PTT) respectively. But, if activated the RPT-PTT, the signal will be temporarily interrupted if press PTT during these cross-band repeater modes.

When the transceiver is standby, press the webs + 2 keys and the screen will display:

Press the wave key to enter settings, press the 🔼 / 🔽 key to select the required type, and press the 💷 key to confirm.

# Special Reminder 🔨

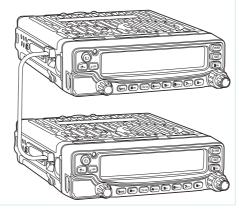
- » In cross-band repeater mode, the middle of the screen will display ♠. When in repeater transmitting / receiving mode, the screen will display ♣.
- » In order to use the repeating well, there is the Repeating Receipt which is set by MENU46. The repeating receipt timely and effectively reports the 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 mobile receiver was released PTT, the hold time is able for the equipment keeping transmitting for a while during waiting for the response. If there is no efficient QT/DQT detected within the hold time, then the transmitter will be released PTT. The repeating hold timer is setting the hold time for the transmitter to keep transmitting after the QT/QDT receiving signal disappears. This function is programmable by the programming software accordingly.

#### How to combine two transceivers as a repeater

Through MENU 32 RPT-SET, you can set the two transceivers as Repeater transceivers (T-W RPT) or one set Repeater receiver (RPT-RX) and the other set as the Repeater transceiver (T-W RPT), and then connect these two transceivers with a cable with 8 pins crystal head on both ends (The connecting interface is on the side of the transceiver where with a rubber cover marked PC). Now this two combined transceivers can be work as a repeater.

Repeater receiver (RPT-RX): It only for receiving.

Repeater transceiver (T-W RPT): It can be transmit or receive. In T-W RPT standby, when receiving the matching signal carrier it works as the Repeater receiver, when receiving the Repeater receiver's transmitting signal, it works as the Repeater transmitter.





## Special Reminder <u></u>

- The connection way of the two transceivers as the repeater is the same as the connection way of the base station and front panel, see details instruction on P47.
- >> The 8 pins connection cable can use the supplied 5M extension cable (SCO-002).
- Combine the two transceivers as the Repeater receiver (RPT-RX) and the Repeater transceiver (T-W RPT) can work as a directional repeater, while combine the two transceivers as Repeater transceivers (T-W RPT) can work as a twoway repeater.

### Scan add (SCAN-ADD) - Menu 33

Scan add determines whether a given channel is added to scan. As a result, this function can only be used in channel mode, can only be used with the present channel, and is ineffective in frequency mode.

When the transceiver is in channel mode, press the MENU + 3 keys and the screen will display: SCHN-ADD STATE OF THE MENU + 3 KEYS AND THE STREET OF THE MENU + 3 KEYS AND THE STREET OF THE MENU + 3 KEYS AND THE STREET OF THE ST

Press the key to access the menu, and after pressing the / / keys to select the required parameter, press the key to confirm, and the exit key to return to standby.

Scan Add has 2 parameters: ON (add), OFF (cancel).

Note: This function will be prohibited if the transceiver is not working in radio mode.

### Automatic power-off (APO-TIME) - Menu 34

APO TIME

When the transceiver is standby, press the web + 3 + keys and the screen will display:

Press the went key to access the settings menu, and after pressing the \( \textstyle \) keys to select the desired parameters, press the \( \textstyle \) key to confirm, and the \( \textstyle \) key to return to standby.

If the transceiver undertakes no operations, and does not receive or transmit any signals within a set period of time, the Automatic Power off function will automatically power the transceiver off.

There are 5 kinds of automatic power off in total: 30 minutes, 60 minutes, 90 minutes, 120 minutes, and 150 minutes. OFF: Turning off the automatic power off function, it is prohibited in repeater or relay mode.

Note: This function will be prohibited if the transceiver is not working in radio mode.

### Single-tone pulse frequency (ALERT) - Menu 35

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, 1450Hz.

When the transceiver is standby, press the will display: [HLERT

Press the west to access the menu, and after pressing the \( \textstyle \) / \( \textstyle \) keys to select the desired parameter, press the \( \textstyle \) key to confirm, and the EXIT key to return to standby.

# Special Reminder /

>>> When in transmitting mode, you can send the single-tone pulse frequency you've selected by pressing key " 🔝 " on the panel or the 📖 on the hand microphone.

### Compand (COMPAND) - Menu 36

The compand function effectively minimizes noise, and its results are especially evident when transmitting over long distances.

When the transceiver is standby, press the MENU + 31 + 15 keys and the screen will display: COMPAND

Press the wext to access the menu, and after pressing the \( \)/ \( \) keys to select the desired parameter, press the \( \) key to confirm, and the EXIT key to return to standby.

There are two kinds of compand: ON (activate), OFF (deactivate),

Note: This function will be prohibited if the transceiver is not working in radio mode.

#### Overheating detection (FAN-SET) - Menu 37

The transceiver has a built-in temperature detection system that will activate a cooling fan if required.

There are three ways to activace the cooling fan;



TX: In transmitting mode, it will activate the cooling fan.

HI-TE/TX: When the transceiver's temperature reaches a pre-set value or in transmitting mode, it will activate the cooling fan.

ALWAYS: When turn on the transceiver, the fan will always in cooling mode.

When the transceiver is standby, press the webs + 1 keys and the screen will display: FAN-SET 331

Press the wind key to access the settings menu, and after pressing 🔼 / 🔽 keys to select the required parameters, press the wind key to confirm, and the key to return to standby.

### Voltage testing (LOW -V) - Menu 38

When the transceiver is installed in a car or another unstable power source (such as a car battery, etc), please activate this function in order to prevent the transceiver from consuming electricity over an extended period, rendering the equipment unable to supply electricity for regular work.

When the transceiver is standby, press the www + 3 + 1 keys and the screen will display:

Press the wind key to access the settings menu, and after pressing \( \textstyle \) keys to select the required parameters, press the wind key to confirm, and the key to return to standby.ON (activate) or OFF (deactivate)

## Special Reminder 🔨

- >> When the voltage is too low, a voice prompt will sound every 10 seconds, and if Voltage Testing is active, the transceiver will automatically power off when the voltage is insufficient. If the voltage is found to be too high, transmission will be blocked.
- >> When you need the transceiver continues to work under the low voltage, please turn on the under-voltage transmission setting via @wow.un supplied programming software.
- » The transceiver can set the lowest voltage via @wouxun supplied programming software. The under-voltage threshold value is from 9.5V to 10.5V.

### Voice scrambler (SCRAM) - Menu 39

This function is a kind of special speech handling, activating voice scrambling avoids the user's speech being overheard by users of transceivers who are not using the scrambling function.

Press the MENU + 31 keys, and the screen will display: SCRAM 33

Press the weak key to access the settings menu, and after pressing \( \) keys to select the desired setting, press the weak key to confirm, and the exit key to return to standby.

There are 8 voice scrambling groups (1-8) selectable, and OFF deactivates.

# Special Reminder <u></u>

- >> The voice scrambler is optional!
- >> This function will be prohibited if the transceiver is not working in radio mode.

### Saving scanned CTCSS / DCS (SC-QT) - Menu 40

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

- 1. Save as your transceivers decoder and encoder (ALL).
- 2. Save as your transceivers encoder (ENCODER).
- 3. Save as your transceivers decoder (DECODER).

When the transceiver is standby, press the webs + \*\* keys and the screen will display: \*\* Less the webs are the screen will display: \*\* Less the webs are the screen will display the screen will disp

Press or to select, press the MEND to confirm, and press the EXT key to exit.

# NOTE <u>∧</u>

- >>> Saving scanned CTCSS/DCS is ineffective in cross-band repeat or repeater or reception/transmission mode.
- >> This function will be prohibited if the transceiver is not working in radio mode.

### CTCSS scanning (SC-CTC) -- Menu 41

This function scan all the frequencies/channels which with CTCSS setting, in case to confirm if the transmitter transmits the CTCSS code. When your CTCSS code is not matching with the other member on your group, you can activate this function to confirm the CTCSS code.

When the transceiver is in receiving mode, press MENU + 4 + 1 , the screen displays: SC-CTC (ST), and then press MENU to enter the CTCSS



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scanning.

### Special Reminder $\triangle$

- >> When the current frequency or channel is not receiving any carrier wave signal, then it cannot activate this CTCSS scanning function.
- >> If you want to scan the frequencies or channels counterclockwise, then you can press ( ) or rotate the channel knob to change the scanning direction.
- >>> When scans the CTCSS frequency, it will show on the screen, you can press MENU to save. If the scanned CTCSS is unwanted, then you can press to continue scanning, until scans the one you wanted.

### DCS scanning (SC-DCS) --- Menu 42

This function scan all the frequencies/channels which with DCS setting, in case to confirm if the transmitter transmits the DCS code. When your DCS code is not matching with the other member on your group, you can activate this function to confirm the DCS code.

When the transceiver is in receiving mode, press (\*\*), the screen displays (\*\*), and then press (\*\*), and the press (\*\*), an

# Special Reminder <u></u>

- >> When the current frequency or channel is not receiving any carrier wave signal, then it cannot activate this DCS scanning function.
- >> If you want to scan the frequencies or channels counterclockwise, then you can press \\_/\sum or rotate the channel knob to change the scanning direction.
- >>> When scans the DCS frequency, it will show on the screen, you can press MENU to save. If the scanned DCS is unwanted, then you can press so to continue scanning, until scans the one you wanted.

#### Scan group settings (SC-GROUP) - Menu 43

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

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

When the transceiver is standby, press the well than the transceiver is standby, which is the well than the transceiver is standby, which is the well than the transceiver is standby, which is the transceiver is the well-than the transceiver is the transceiver is the well-than the transceiver is the transceiver is the well-than the transceiver is the

Press or to select, press to confirm, and press went the EXIT key to return.

## NOTE

- >> The Scan group setting is ineffective in Cross-band repeat or repeater reception mode / transmission mode.
- >> This function will be prohibited if the transceiver is not working in radio mode.

#### Remote control (RC-SW) - Menu 44

When the transceiver is standby, press the keys and the screen display:

Press the key to access the settings menu, and after pressing / keys to select the required settings, press the key to confirm, and the transceiver will reboot automatically.

There are two settings of remote control setting: ON(activate), OFF(deactivate)

### Side key setting (PF1-SET) ---- Menu 45

Note: This side key is the second button under the PTT key of the supplied DTMF hand microphone, is not on the transceiver's base station.

In standby, press (MENU) + (1), the screen displays (PF1-SET). Press (MENU) to enter, press (A) / (V) to select the desired setting, then press (MENU) to confirm.

You can define the side key as: OFF (no definition), KILL, STUN, MONI, INSPECTION.

When press PTT to talk, press this side key to activate the above defined setting. The detailed operation instruction, please refer to the remote control setting.

If in standby, press this side key will activate the squelch monitoring.

Repeater receipt tone setting (RPT-TONE) --- Menu 46

In standby, press MENU + 155 , the screen displays RPT TONE . Press MENU to enter, press 1 To select the desired



setting, then press (MENU) to confirm and return to standby mode.

ON: Activate the repeater receipt tone function; OFF: Deactivate.

### Reset settings (Reset)- Menu 47

Functional Parameter Reset (VFO): resets all functional settings to factory default values, but channel parameters are not reset.

Total Parameter Reset (ALL): resets all of the transceiver's functional settings and channel parameters to factory values.

When the transceiver is standby, press the MEND + 12 keys and the screen will display: RESET 0

Press the MENU key to access the settings menu, and after pressing the residue or keys to select the desired parameter, press were , the screen will display: then press were and the screen will display: then press were and the screen will display:

After the transceiver resets (VFO / ALL), it will restart and return to standby mode.

#### FM radio function (FM-RADIO) - Menu 48

You can enter the FM radio by using this function.

When the transceiver is standby, press the wend + the keys and the screen will display: FM-RADIO SS the wend to be screen will display: FM-RADIO SS the wend to be screen will display to be screen will display.

Press the or when select, when select ON, press the went key to enter FM radio, when select OFF, press ment to return to standby mode.

# NOTE <u></u>

- >> The FM-Radio function is ineffective in Cross-band repeat or repeater reception mode / transmission mode.
- >> This function will be prohibited if the transceiver is not working in radio mode.
- >> This function can only be set on Area A.

### AM frequency auto-recognize switch (AUT.AM) --- Menu 49

Note: This transceiver will automatically recognize the AM receiving frequency.

In standby, press (LEVI) + (1) to select the desired setting, then press (LEVII) to confirm, and press (LEVIII) to return to standby.

ON: Activate this function, it will automatically recognize 108.000MHz - 135.995MHz as the AM receiving mode; OFF: Deactivate.

Note: This function can only be set on Area A.

### AM setting (AM-SW) --- Menu 50

Note: It will set the transceiver in AM receiving mode.

In standby, press (Line) + (1) + (2) , the screen displays (Line) to enter, press (Line) to select the desired setting, then press (Line) to confirm, and press (Line) to return to standby.

ON: Activate; OFF: Deactivate.

Note: This function can only be set on Area A. Each band can set the AM receiving mode respectively.

### How to Operate the FM Radio

### 1.Turning ON

When the transceiver is standby, press the MEND + MAND | Label Help + MEND | When the transceiver is standby, press the MEND + MEND | Label Help +

### 2. Tuning Radio Stations

When in FM radio mode, press the 👪 key to enter frequency settings, at this time the screen will display:

Now, input the desired frequency (4 digits), and if the input frequency is within the scope of the transceiver's range, it will be successfully established.

If the input frequency is beyond the transceiver's range, the setup will fail and the transceiver will revert to the last set frequency.

Example 1:Setting FM Waveband 105.9MHz

When the transceiver is standby, press the keys to access the FM radio function, (at this point the screen will display the default frequency or the one previously used, and the screen will display "FM" on the top-right of the screen).

Press the key to access frequency settings, and the screen will display 8 horizontal lines; press & frequency settings, and the screen will display 105.9MHz, and frequency setup is complete.

Example 2:Setting FM Waveband 90.4MHz

When the transceiver is standby, press the went + the keys to access the FM radio function, press to access FM settings, and 8 horizontal lines will be displayed on the screen; press the went of the screen; press the went of the screen will display 90.4MHz, and frequency setup will complete.



In FM radio mode, press at to scan the FM radio station, it will stop until scans a FM station. During the scanning, press any other key to stop the scanning eccept key.

### 3.Storing and calling out FM radio stations

The transceiver can store 20 FM radio channels.

### Saving an FM Reception Channel:

When in FM Waveband mode, press the key, and the screen will display:

After pressing the \_\_\_\_/ \_\_ key, select the channel number you wish to save, press \_\_\_\_\_ to confirm, and the transceiver will automatically return to the FM waveband frequency display interface.

Example: when in FM waveband mode, save the displayed frequency to channel "5" while in FM waveband mode, press the key, and the screen will display: MEDICH OI

Press \( \times \) or the \( \frac{\frac{1}{2}}{2} \) key, and the LCD screen will display: \( \frac{1}{2} \) MEMCH 05

Press the will key to confirm, and the transceiver will automatically return to the FM waveband frequency display interface.

### Calling out the FM memory channel:

When in FM waveband mode, press the # key, and the screen will display:

Press / Wey to select the desired FM memory channel, and then press to confirm, the transceiver will automatically enter the selected FM channel and display the FM radio frequency.

#### 4.Exiting the FM Radio Mode

When in receiver mode, press the extr key, and the screen will display: RADIOOF?

Press the MENU key to exit the FM radio mode.

### Repeater usage

### 1."RPT-PTT" repeater PTT selection

When the transceiver is standby, press the will display: RPT-PTT 331 keys and the screen will display:

Press the weak key to access the settings menu, and after pressing \( \times \) keys to select ON, press the MENU key to confirm, and the \( \times \) key to return to standby.

When two-way cross-band repeater "RPT-PTT" is ON, you only need to press the [PTT] to stop repeater transmission and reception. When this happens you can directly transmit through the directional frequency using the transmitter to transmit, Release the [PTT] key to switch to two-way cross-band repeater mode.

### 2."RPT-SPK" Repeater SPK selection

When the transceiver is standby, press the well the screen will display: RPT-SPK

Press the MENU key to access the settings menu, and after pressing \( \textstyle \) keys to select ON, press the MENU key to confirm, and the EXIT key to return to standby.

When the two-way cross-band repeater "RPT-SPK" is ON, if it receives an effective carrier wave signal, the speakers will emit a tone, and simultaneously send out the received signal out into space on another frequency.

#### 3.Cross-band repeater entry and exiting

When the transceiver is standby, press the NEND + 2 keys and the screen will display: RPT-SET 832

Press the WEND key to access, press \( \text{\textit{N}} \) to select the directional cross-band repeater (X-DIRPT) or two-way cross-band repeater (X-TWRPT), and then press \( \text{MEND} \) to confirm.

At this time the transceiver will restart and enter the directional cross-band or two-way cross-band repeater mode.

#### 4. In the cross-band repeating mode

When the transceiver is standby, press the well + 3 keys and the screen will display:

Press the MEND key to access, press \( \textstyle \) to select the RADIO mode(RADIO), and then press \( \textstyle \) to confirm.

5. In the cross-band repeating mode, if you set the "RPT-PPT" to be "ON", then press PTT to stop transmitting or receiving, but get the frequency on the master area transmitted as the TX frequency of the transmitter, while releasing PTT to access to standby for the Two-Way Repeating mode.



6. In the cross-band repeating mode, set the "RPT-SPK" to be ON, if any receiver of the cross-band repeat receives the effective carrier signal, the speaker will be ON, and at the same time, the equipment will transmit out the receiving audio signal by another frequency.

7. The difference between the directional cross-band repeating and Two-way cross-band repeating is the fixed or unfixed receiver and transmitter. Directional cross-band repeating: Use the Master RX frequency as the RX frequency of the repeating receiver, while the Sub TX frequency is the TX frequency of the cross-band repeating transmitter.

Two-way cross-band repeating: There is not specified for the receiver or transmitter. In standby, the master or sub area can be either as the receiver. Either of them receives the effective carrier, the other side can be as the transmitter to activate the transmission accordingly.

Example:

Directional cross-band repeating: The master frequency 150MHz at A area, while sub frequency 430MHz at B area. When the master frequency receives the signal (the sub frequency can not receive the effective signal in the directional cross-band repeating mode), the sub frequency 430MHz will be activated to transmit out.

Two-way cross-band repeating: The master frequency 150MHz at A area, while sub frequency 430MHz at B area. When there is A area receiving the signal on 150MHz firstly, then the B area will be immediately activated to send out 430MHz. While there is B area receiving the signal on 430 MHz firstly, then the A area will be activated to send out 150MHz instead.

## NOTE

» If select radio (RADIO), it will exit the cross-band repeater mode and return to the regular radio communication mode.

### Special Tips

KG-UV950P can receive strong signal from the image frequency, and/or when it is in the twin reception, some frequencies at A area and B area may affect the sensitivity more or less.

If you receive some unknown signals which may be caused by the interference from the image frwequency, please use the following formulas to confirm whether it is from the image frequency or not. These formulas can be also used to design the high-end measuring tool like Notch table etc.

### Repeater usage

144MHz as TX frequency at B area-100.35MHz=the middle frequency or the second harmonic frequency at B area

28MHz as TX frequency at A area-11.7MHz=the middle frequency or the second harmonic frequency at B area

50MHz as TX frequency at A area-58.5MHz=the middle frequency or the second harmonic frequency at B area

(144MHz as RX frequency at B area-47.25MHz)x n1-(28MHz as TX frequency at A area)x n2=the middle frequency or the second harmonic frequency at B area

(430MHz as RX frequency at B area-47.25MHz)x n1-(50MHz as TX frequency at A area)x n2=the middle frequency or the second harmonic frequency at B area

(50MHz as TX frequency at A area+45.05MHz)x n1-(144MHz as TX frequency at B area)x n2=the middle frequency or the second harmonic frequency at B area

144MHz as TX frequency at B area-(50MHz as RX frequency at A area+45.05MHz)x n1=the middle frequency or the second harmonic frequency at A area

144MHz as TX frequency x n1- (430MHz as RX frequency-45.05MHz)x n2=the middle frequency or the second harmonic frequency at A area 144MHz as TX frequency x n1- (430MHz as RX frequency-45.05MHz)x n2+11.15MHz= the middle frequency or the second harmonic frequency at A area

430MHz as TX frequency at B area x n1-(50MHz as RX frequency at A area + 45.05MHz)x n2= \* the middle frequency or the second harmonic frequency at A area

430MHz as TX frequency x n1- (144MHz as RX frequency+ 45.05MHz)x n2= the middle frequency or the second harmonic frequency at A area

### Hand microphone encoding function



### ■ DTMF Encoding (Hand Microphone)

This device features DTMF encoding; press the number pad or other keys on the handset when transmitting to activate dual-tone multifrequency encoding.

The number pad corresponds to DTMF encoding code as follows:

MENU			EXIT	<b>→</b>	Α	В	С	D
1 BAND	2 MHZ	(3) (1/01)	* scan	<b>→</b>	1	2	3	*
4 MEMCH	5 H/L	G WFB/MR	SCRAM	<b>→</b>	4	5	6	0
7 SET-D	8 TDR	9 sq.	# LOCK	<b>→</b>	7	8	9	#

The transceiver encoding function usage:

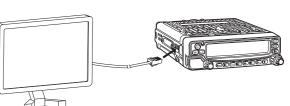
When pressing the [PTT] key under transmission mode press the key on the hand microphone and it will transmit dual tone multi-frequency (DTMF) encoding.

#### ■ Remote Control Function

To use the remote control function you must first activate it, at the same time you must set the transceivers I.D number, and master control number.

These settings can only be set via the programming software.

- 1. Open the KG-UV950P programming software.
- 2. Connect the transceiver to your PC (Computer)



#### I. How to activate the remote control function

The precondition to activate the remote control function is set the transceiver's ANI ID code (Default ID:101), and different controlling functions need to be set different controlled code or other settings. For example:

1. If the transceiver is the controlled one, it should set a controlled ID (SCC-EDIT).

2. If the transceiver is the master controller, then it should also set a master controlled ID (MCC-EDIT).

3. If activate the remote power on/off function, then is should be also select the RC POWER options as to -

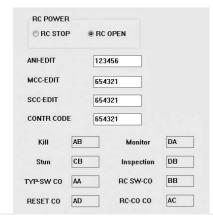
RC OPEN: It allows remote control to power on or off the transceiver.

RC STOP: Deactivate the remote control function (see the following detailed instructions).

4. If activate the remote change settings, then it should be also set the control code.

All the above code can be set from 3-6 didits, and the first digit cannot be 0, if the code set 000 or 000000, means this function is inactivate!

All the above code can be programmed ONLY via our company's programming software.





Set the control code of the master controller and the controlled code of the controlled transceiver as 654321. If the master controller only control the other transceiver and not be controlled by the others, then it must set the controlled code as 000000, vice verse, if the controlled transceiver only be controlled by the others and not control the other transceiver, then it should set the master control code as 000000. The following remote stun, kill, monitoring and inspection function with the same principle.

(1) Stun

Press PTT+ 🔐 (front panel) of the master controller, it will send out its controller ID+CB(Stun code) +ANI ID code (123456).

If the controlled ID sent by the master controller is same with the controlled transceiver's controlled ID, and the ANI ID of the two transceivers is the same it will activate the Stun function

(2) Ki

Press PTT+ ( ) (front panel) of the master controller, it will send out its controller ID+AB(Kill code) +ANI ID code (123456).

If the controlled ID sent by the master controller is same with the controlled transceiver's controlled ID, and the ANI ID of the two transceivers is the same, it will activate the Kill function.

(3) Monitoring

Press PTT+ (front panel) of the master controller, it will send out its controller ID+DA(Monitoring code)+ANI ID code (123456).

If the controlled ID sent by the master controller is same with the controlled transceivr's controlled ID, and the ANI ID of the two transceivers is the same it will activate the Monitoring function (The monitoring time is 15 seconds).

(4) Inspection

Press PTT+ 🔝 (front panel) of the master controller, it will send out its controller ID+DB(Inspection code) +ANI ID code (123456).

If the controlled ID sent by the master controller is same with the controlled transceiver's controlled ID, and the ANI ID of the two transceivers is the same, it will activate the Inspection function.

# NOTE 🗥

>> The remote stun, kill, monitoring and inspection function of the controlled transceiver will not be controlled while in repeater mode.

### II. Remote control power on/off

Controlled transceiver setting:

The controlled transceiver's ANI ID code is 654321, and click the remote control power (RC POWER) as RC OPEN.

## Special Reminder <u></u>

>> When manually sending code, if the ANI ID/Master controller ID/Controlled transceiver ID is less then 6 digits, the last digit will be #, otherwise, it will show the complete ID number. For example: 654#+BB+123#

### (1) Remote Power OFF

The Controlled Transceiver can be turned OFF by manually sending 654321 (the controlled transceiver Controlled ID) + BB (Remote control power on/off code) + 123456 (the controlled transceiver ANI ID code) on the Master controller transceiver

Note: After remote powered OFF by the master controller, the standby orange indicator of the controlled transceiver is ON.

### (2) Remote Power ON

The Controlled transceiver can be turned OFF by manually sending 654321 (the controlled transceiver Controlled ID) + BB (Remote control power on/off code) + 123456 (the controlled transceiver ANI ID code) on the Master controller transceiver.

Note :After remote powered OFF by the master controller, if you want to manually turn on the controlled transceiver, you can press the front panel (1) key twice.

### III. Remote changing settings

In standby, press the will display: RC-SW keys of the controlled transceiver, the screen will display:

Press the \( \to \) keys to select ON, and press \( \text{key} \) key to confirm, then the transceiver will reboot with keypad locking.

Hold the PTT of the handheld or mobile transceiver (the controller) and sending out the controlled transceiver's controlled code (CONTR CODE) + AC (Remote control code), and then release the PTT.

If heard a beep prompt from the controller (means the remote control changing function is activated), then you can remote control on the master



VFO and change the secondary VFO's frequency, output power, CTCSS setting, etc. See the following detailed instructions:

### 1. Change frequency (01 + 8 digits frequency)

It will only change the secondary VFO's frequency, the transmitting and receiving frequency will be the same after changed.

## NOTE <u></u>

>> The two frequencies must be two different bands (UV or VU), otherwise it cannot be changed. E.g. the master VFO A is UHF, while the desired changing frequency of secondary VFO B must be VHF, vice verse.

Remote change frequency will cancel the offset shift direction of the changed secondary VFO.

After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the ### + Frequencies (total 8 digits), and then release the PTT.

The controller will have a beep prompt, and the controlled transceiver will reboot with the updated frequency on the secondary VFO display which you've just set remotely. If heard none beep prompt from the controller, the setting was failed, please repeat the above settings and try again.

### 2. Change channel number (02 + 3 digits channel number)

It will change the repeating channel number in cross-band mode, while in radio communication mode, it will change the secondary VFO's channel.

# NOTE <u></u>

>> The two channels must be two different bands (UV or VU), otherwise it cannot be changed. E.g. the master VFO A is UHF, while the desired changing channel of secondary VFO B must be VHF, vice verse.

After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the + + + Channel number (total 3 digits), and then release the PTT.

The controller will have a beep prompt, and the controlled transceiver will reboot with the updated channel number on the secondary VFO display which you've just set remotely. If heard none beep prompt from the controller, the setting was failed, please repeat the above settings and try again.

### 3. Change repeater mode (03 + matching mode code)

It will change the transceiver to normal Radio communication mode (code 1: RADIO), Directional cross-band repeater mode (code 2: X-DIRPT) or two way cross-band repeater mode (code 3: X-TWRPT).

## NOTE <u></u>

>> If changed to Directional cross-band repeater mode, the receiving VFO will be defined as the master VFO, it will be also defined by the none DTMF microphone if used.

After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the + + + + 1 (RADIO)/2 (X-DIRPT)/3 (X-TWRPT), and then release the PTT.

The controller will have a beep prompt, and display the controlled transceiver's ANI ID code, after that, the controlled transceiver will reboot with the updated repeating mode which you've just set remotely. If heard none beep prompt from the controller, the setting was failed, please repeat the above settings and try again.

### 4. Change transmitting power (04 + matching power code)

It will change the transceiver's transmitting power temporarily (both VFOs). After reboot the transceiver, it will return to the transceiver's original power setting.

- (1). After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the + 1 (Low power) /2 (Middle power) /3 (High power) of the controller, and then release the PTT. There is a beep prompt from the controller, which means the setting is succeed, if heard nothing, please repeat the above settings and try again.
- (2). After changed, hold the controller's PTT and pressing + , and then release the PTT, at this time the controller will beep and show the ANI ID code of the controlled transceiver, which means exit the remote changing mode.
- (3). If you want to cancel the changed power level, you can turn off and then turn on the transceiver, it will be back to the previous setting.
- 5.Change receiving CTCSS tone (05 + 4 digits CTCSS tone)



It will change the transceiver's receiving CTCSS tone temporarily (both VFOs). After reboot the transceiver, it will return to the transceiver's original CTCSS setting.

- (1). After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the + + + 4 digits CTC-SS tone (if only 3 digits should add a 0 at the beginning), and then release the PTT. There is a beep prompt from the controller, which means the setting is succeed, if heard nothing, please repeat the above settings and try again.
- (2). After changed, hold the controller's PTT and pressing (2) + (3), and then release the PTT, at this time the controller will beep and show the ANI ID code of the controlled transceiver, which means exit the remote changing mode.
- (3). If you want to cancel the changed CTCSS tone, you can turn off and then turn on the transceiver, it will be back to the previous setting.

### 6.Change receiving DCS tone (06 + DCS tone)

It will change the transceiver's receiving DCS tone temporarily (both VFOs). After reboot the transceiver, it will return to the transceiver's original DCS setting.

- (1). After activated the remote changing function of the controlled transceiver, hold the controller's PTT and pressing the ### + 4 digits DCS tone (first digit 0 for positive code, e.g. 0023 for D023N, while 1 for negative code, e.g. 1023 for D023I), and then release the PTT. There is a beep prompt from the controller, which means the setting is succeed, if heard nothing, please repeat the above settings and try again.
- (2). After changed, hold the controller's PTT and pressing + and then release the PTT, at this time the controller will beep and show the ANI ID code of the controlled transceiver, which means exit the remote changing mode.
- (3). If you want to cancel the changed DCS tone, you can turn off and then turn on the transceiver, it will be back to the previous setting.

## Special Reminder <u>A</u>

- » In remote changing mode, if the controlled transceiver doesn't receive any DTMF tone from the controller after 30 seconds, it will automatically exit the remote connection. Also, you can input (2) (2) to exit.
- >> In remote control mode, the priority functions are prohibited.

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# Special Reminder <u></u>

- » In remote control mode, after got a beep prompt, the speaker will turn off, and the other VFO cannot receive.
- >> If the transceiver is low voltage, excessive voltage, or in repeating transmitter/receiver mode, it will not activate the remote control connection function.
- » After activated the remote control setting, the PTT and all keypads will not work except the ## PTT and were keys.

E.g.: The original settings of the controlled transceiver are,

VFO A: RX Freq.: 440.02500MHz, TX Freq.: 445.02500MHz,

VFO B: RX Freq.: 140.02500MHz, TX Freq.: 145.02500MHz

VFO A and B: TX/RX CTCSS Tone: 67Hz, Control code (CONTR CODE): 654321

- 1. Change the VFO A's working frequency to 443.02500MHz (same transmitting and receiving frequency).
- (1). Set the controller handheld or mobile transceiver:

TX Freq.: 140.02500MHz, RX Freq.: 145.02500MHz.

- (2). After activated the remote changing function (MENU 44), hold the PTT, and pressing 654321 + AC, then release the PTT, with the beep prompt heard, the transceiver enters the remote control mode, meanwhile, it will reboot, and then,
- 2. Change the VFO A's receiving CTCSS tone to 151.4Hz (But it will change the two VFO'S CTCSS tone simultaneously).
- (1). Set the controller handheld or mobile transceiver:
- TX Freq.: 440.02500MHz, RX Freq.: 445.02500MHz.
- (2). Hold the PTT, and pressing 654321 + AC, then release the PTT, with the beep prompt heard, the transceiver enters the remote control mode, meanwhile, it will reboot, and then,



- (4). Exit remote changing mode: Hold PTT and pressing + 3, and then release the PTT. The controller will show the controlled transceiver's ANI ID and then return to standby.

#### ■ Wire-clone Function

Connect the two transceivers with the connection cable on the PC jack, press key of the source transceiver, the two transceivers' screen will display CommUtaio Data, it starts copying.

After finishing the copying, the two transceivers will reboot, if failed copying, they will return to standby mode.

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### Optional accessories



Switching Power Supply (30A)



USB Programming Cable



Mobile Speaker / Mic



Omni-antenna



Omni-antenna



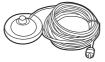
Directional-Antenna



Clamps Install Mount



Connection Cable



Strong Magnetic Mount

### **Troubleshooting**



Before assuming your transceiver is broken, please check your transceiver according to the following table; if the problem persists, you can reset the transceiver, which sometimes resolves problems with settings.

Fault	Solution
	>> Check that the volume knob has been set to maximum.    Please reset sub-audio settings to check whether different channels from other group
Reception prompt remains but speaker is silent	<ul><li>members have been set.</li><li>Check whether squelch settings are correct.</li></ul>
Keypad is unresponsive	>> Check whether keypad has been locked.
	>> Check whether other keys have been pressed.
Other voices (not from group members) appear in the channel.	>>> Please change the CTCSS / DCS code.
Receive regular voice pause (About 3 second intervals)	>>> Please see if the "PRICH-SW" (Priority scanning switch) is turned on.
Can not enter scanning mode	>>> Please see if the scan group channel, Scan Add function is turned on.
Transceiver automated activation/deactivation switch	>>> Please make sure all used power sources are under 11.5V, or if the "APO" switch is or
When pressing the transceiver PTT key to transmit, there is no output power and no reception	>> See if it has been stunned or killed.
Cannot set up the cross-band repeater	>> Please make sure A/B area is on the cross-band repeaters operating frequency.
Cannot transmit in repeat mode	>>> Please check to see if the receivers squelch and CTCSS / DCS settings are correct.

### Announcement

**Swouxun** endeavors to achieve the accuracy and completeness of this manual, but it is still not perfect for any possible omissions or printing errors. All the above is subject to be updated without prior notice.



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