

KG-889
Professional FM Transceiver

DUAL FREQUENCY DUAL DISPLAY
AND DUAL STANDBY









IP55 Waterproof 1750Hz Burst Tone 5W/4W CTCSS Scan and DCS Scan DTMF Encoding and Decoding

BRIGHT FLASHLIGHT ILLUMINATION FUNCTION

Approved Code by Ministry of Industry and Information

Technology of the People's Republic of China:

CMIIT ID:2010FP6594

Patent No. for the Appearance: ZL201130252214.5 4.09500

USER'S MANUAL







User Safety, Training, and General Information

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR

OWOUXUN PORTABLE TWO-WAY RADIO.

Compliance with RF Energy Exposure Standards

Your **Guouxun** 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 \triangle

>> 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 **Swouxun** 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 subpart 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 let the antenna

farther away from your head.

Body-worn operation

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

Antennas & Batteries

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

Approved Accessories

For a list of **Swouxun** 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 while parked in gasoline service stations.
- >> If you require this machine to be developed or some changed, pleased connect with **Swouxun** or your **Swouxun** dealer.

FCC Caution:

This equipment has been tested and found to comply with the part 90 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.

FCC Licensing Requirements

Your radio must be properly licensed Federal Communications Commission prior to use. Your 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 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 heating source.

Do not place the radio in excessively dusty, humid areas, nor on unstable surfaces.

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.

CE Caution:

Hereby, **Swouxun** declares that this Two-way radio is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

A copy of the DOC may be obtained through the following address.

Address: No.928 Nanhuan Road, Jiangnan High Technology Industry Park, Quanzhou, Fujian 362000, China

www.409shop.com

Contents

Owouxun
Professional FM Transceiver

Unpacking and checking of your equipment	01
Supplied accessories Description of functions Getting started	01
Description of functions	02-03
Getting started	04-09
LCD display	04
Description of transceiver	05-06
Shortcut operation sheet	10-15
How to operate	15-57
Setting menu lock function	
Setting frequency step (STEP) MENU 1	
Setting power save mode (SAVE) MENU 2	17-18
Setting squelch level (SQL-LE) MENU 3	
Setting transmission (TXSET) MENU 4	19-21
Setting CTCSS / DCS scan (SCN CD) MENU 5	21-22
Setting voice guide (SETVOC) MENU 6	22-24
Setting VOX (VOX) MENU 7	
Setting receiving CTCSS / DCS (RX-CDC) MENU 8	
Setting transmitting CTCSS / DCS (TX-CDC) MENU 9	

Contents

28-31
32
33-36
37
38
38
39-40
41-42
43-44
44
45
45-49
49-51
51-52
····· 52-53
53

	3	шоихип
Professional		

Low voltage prompt	53
Adding scanning channel	54
Wireclone function	54
Transmit overtime prompt	55
Working with repeater	55-58
How to use the intelligent charger	58
KG-889 programming guide	59-60
Trouble shooting	61-62
Technical parameter	
Appendix 1 (CTCSS)	63
Appendix 2 (DCS)	
Technical specification	66
Optional accessories	67
Announcement WWW.409sho	0.COM 68

Unpacking and checking of your equipment

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

Supplied accessories



Description of functions

Owouxun
Professional FM Transceiver

1. VHF: 66-88MHz/136-174MHz/216-280MHz UHF: 400-470MHz/400-480MHz/420-520MHz/450-520MHz

- 2. Output power: VHF: 5W/1W UHF: 4W/1W
- 3. 199 memory channels
- 4. DTMF encoding and decoding
- 5. ANI (Caller ID)
- 6. VOX
- 7. All calls, group calls and selective calls function
- 8. Calling ring function
- 9. Transmitting 1750Hz burst tone
- 10. Distant urgency alarm, SOS function
- 11. Digitial FM radio
- 12. CTCSS/DCS scan
- 13. Calling ring
- 14. Stopwatch timer
- 15. 105 groups DCS/50 groups CTCSS
- 16. Voice guide (English/Chinese)
- 17. Wide/Narrow bandwidth selection (25KHz/12.5KHz)
- 18. Auto backlight
- 19. Bright Flashlight Illumination Function



Description of functions

- 20. Display modes selectable (channel number, channel+frequency, edited channel name)
- 21. Reverse frequency
- 22. Scan modes selectable
- 23. Priority channel scanning
- 24. Step frequency selection (5/6.25/10/12.5/25/50/100KHz)
- 25. High/Low power selectable (VHF:5W/1W UHF:4W/1W)
- 26. High capacity lithium-ion batterypack
- 27. Intelligent charger
- 28. Setting frequency shift direction
- 29. Busy channel lockout
- 30. Multi power-on display modes (full screen / Batt-V / others)
- 31. Low voltage prompt
- 32. Transmit overtime prompt
- 33. Keypad lock (auto / manual)
- 34. Adding scan channel function
- 35. High/Low power changeable when transmitting
- 36. Programmable by computer
- 37. Wire-clone function
- 38. Menu / channel reset
- 39. IP55 waterproof

Getting started



LCD display

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



Note:

Batterypack capacity indicator (full)

Batterypack capacity indicator(exhausted)

Remaining batterypack capacity indicator

Receiving signal meter

Getting started

Lamp
Antenna

Gwouxun

Encoder

Power switch / Volume control

Receiving light (Green)
Transmitting light (Red)

Screen / LCD display

A/B switch key on the master frequency

Function key

Number key

Up / Down key

Distant urgency alarm, SOS key (PF2)

Exit key

Reverse frequency / Scan key

Lock key / Timer key





Getting started

■ Installing/Removing batterypack

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

NOTE /

- >> Do not shortcircuit the terminals or put the batterypack into fire.
- >> Do not try to remove the case from the batterypack.
- 1. Please aim the batterypack at the back of the transceiver, and then push up and press down the batterypack to lock the release latch. (PIC1)
- 2. If you want to remove the batterypack, push down the release latch and remove up the batterypack from the transceiver. (PIC2)





■ Speed search

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

■ DTMF encoding

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

MENU			EXII		Α	В	С	D
SEIP	2 SAVE	3 801	*R	_	1	2	3	*
411.5	50.0-8	GTONE	0		4	5	6	0
7 vox	8 RXC.D	9 rxc.0	#		7	8	9	#

■ A/B key

Press the A/B key to select the master frequency. The frequency with arrowhead mark is the master frequency, while the frequency without arrowhead mark is the sub frequency. The transceiver transmit and receives is the master frequency, but only receives in the sub frequency. When the transceiver is receiving in the sub frequency, there shows "s" in the screen.

■ TDR key (PF2 key)

- 1. Short press TDR to switch between the single-channel and dual-band modes.
- 2. Long press TDR to activate the ALARM/SOS function/.
- 3. Press MENU+TDR to switch between the frequency mode and channel mode.
- 4. When transmitting, press TDR to temporarily switch between the HIGH and LOW power.

key

Long press # key for 2 seconds to LOCK or UNLOCK the keyboard.

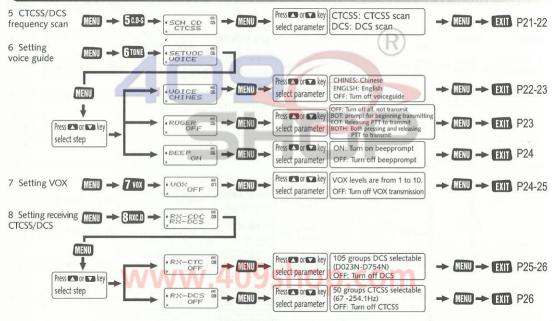
■ Transmit 1750Hz tone

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

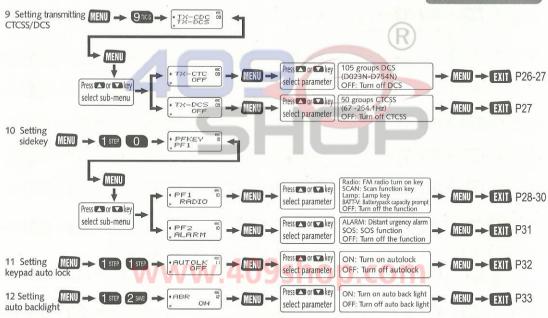
www.409shop.com

Shortcut operation sheet (Gwouxun Selectable Enter See Function **Function** Screen Select function Confirm Back parameterpage order display parameter name explanation set Press or key 1 Setting 7 kinds of channel step: 5K/6,25K/ MENU → EXIT P17 1 SETP MENU -> 10K/12.5K/25K/50K/100K frequency step select parameter 2 Setting Press or key ON: Turn on save function - SAUE OH MENU -> EXIT P17-18 MENU power save OFF: Turn off save function select parameter mode Press or key Sauelch level from 0 3 Setting 3 801 -MENU *SQL-LE → MENU → EXIT P18 select parameter to 9 squelch level 4 Setting → 4 TX-S → transmission H: High power (VHF 5W/ Press or key UHF 4W) MENU -> EXIT P19 *TXP HIGH MENU select parameter L: Low power (1W) MENU The level is selectable Press or key TOR 5 MENU -> EXIT P19-20 MENU from 1 to 10 and 1 second each level. select parameter OFF: Turn off transmit overtime alarm Press or kev Press or key TOT is with 40 levels in *TOT MENU -> EXIT P20 MENU steps of 15 seconds. 60 select step select parameter OFF: Turn off TOT. Press or key *BCL OFF ON: Turn on busy channel lock out MENU -> 13XII P20-21 OFF: Turn off busy channel lock out select parameter Press or key WIDE: 25KHz. *WHWIDE MENU NARR: 12.5KHz. select parameter 10

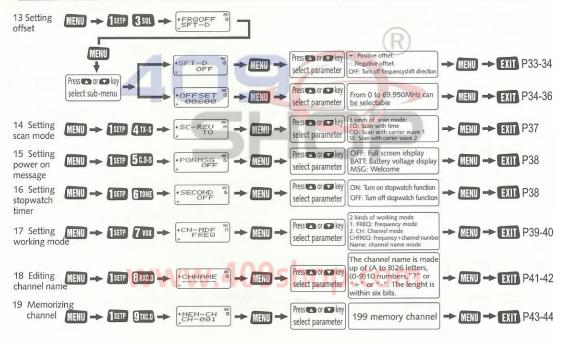
Shortcut operation sheet

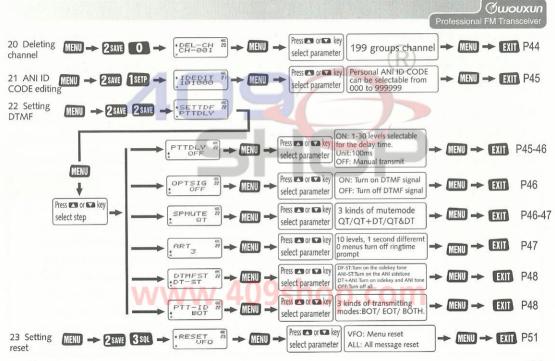






Shortcut operation sheet





- Speed search 🔼 / 🔽 (See page 08)
- High/Low power changeable when transmitting (See page 19)
- All calls, group calls and selective calls (See page 49-51)
- Priority scan function (See page 52-53)
- Low voltage prompt (See page 53)

- Setting reverse function 🛊 R (See page 53)
- Adding scanning channel function (See page 54)
- Wire-clone (See page 54)
- Transmit overtime prompt (See page 55)
- Working with repeater (See page 55-58)

www.409shop.com

How to operate



Menu lock function

If you do not need to operate menu frequently, you can turn it off via programming software: The steps are as follow:

- 1. Select the channel mode as the working mode.
- 2. Turn off the menu function in the channel mode.

If you want to operate menu function, you can activate menu available in channel mode by KG-889 programming software, and then switch it to frequency mode.

NOTE A

- >> In dual standby, there shows "TDR" indicator on the top of the LCD display. The one with arrowhead is the master frequency, while the other one without the arrowhead is the sub frequency. When the radio is receiving in the sub frequency, it shows "S" on the LCD display. In this dual standby, the radios only transmits in the master frequency, while receives in the sub frequency.
- >> Setting the master frequency: In dual standby, press A/B key to switch between the master and the sub frequency.
- In frequency/ channel mode, please press A/B key to select the master frequency from the band A and B. When the arrowhead shows in band A or band B, all the operaions and settings are based on this band accordingly.

How to operate

NOTE \land

- In frequency mode: It is available to separately set the Frequency step, Squelch level, Transmitting power, Bandwidth, R-CTCSS, T-CTCSS, R-DCS, T-DCS, DTMF Signaling, Mute mode, Busy channel lockout, Offset frequency, Frequency deviation direction and channel display mode in band A and band B accordingly.
- In channel mode: It is invalid to set the Frequency step, Transmitting power, Bandwidth, R-CTCSS, R-DCS, DTMF Signaling, Mute mode, Busy channel lockout, Offset frequency and Shift frequency direction in either band A and band B.

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

In standby, press MENU + ISET and the screen will display SIE. Sok T

Press MENU enter, and then press or to select the desired step. Press MENU to confirm, and then press EXII to return to standby.

There are seven options for you: 5 KHz, 6.25 KHz, 10KHz,12.5 KHz, 25KHz, 50KHz and 100KHz steps.

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

This function is to turn off the receiver circuit for a while, and then turn on again to detect signals. Without receiving or transmitting, this function will help batterypack reduce consumption.



In standby, press + 25ME and the screen will display SARUE ON

Press MENU enter and press or to select ON or OFF.

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

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

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 the squelch function. When the spquelch is on , there is voice from the loud-speaker for all of the signaling set by the transceiver. When the squelch level is set too high, the weaker signals may be missed , while the squelch level is set too low, the transceiver may be disturbed by some noice or other needless signals.

NOTE <u>∧</u>

>> The squelch level is selectable options are from 0 to 9. Level 0 means closing the squelch. Level 1-9 makes different levels of noise reduction.

In standby, press (1810) + (350) and the screen will display (1800) - 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 18

How to operate

Setting transmission (TXSET)--- MENU 4

There are 5 options as followings:

TXP: Selecting transmitting power

TOA: Setting transmitting overtime alarm

TOT: Time-out timer

BCL: Busy channel lockout

W/N: Setting wide or narrow bandwidth

1. TXP function is to change transmitting output power.

NOTE A

- >> Shortcut power switch: High/Low power can be switched during transmission. Hold on PTT key and press at the same time to convert high/low power.
- >> Shortcut power switch is temperary. When the transceiver is resumed, the original settings are restored.

press MENU enter. Press or to select HIGH/LOW power. And then press MENU to confirm and press EXII to return to standby.

2. Transmitting overtime alarm (TOA) means that there is beep prompt and flashing transmitting indicator. when the transmitting time nearly reaches the limit time presettedby TOT.



There are 10 optional levels for transmitting overtime alarm, each level one second.

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

In frequency mode, press +number key . The screen will display . Press or to select TOA function, and then press enter. Press or to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display . Press or to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function; or select your desired level from 1-10. Press representation of the screen will display to select "OFF" to turn off this function is the screen will be select to the screen will be select to

3. Time-out timer (TOT) is designed to prevent the transceiver transmitting for a long time.
When the transceiver continuous transmitting time is over than the preset time, the transmission will be compulsorily broken off, and the beep will prompt.

4. Busy channel lockout (BCL) can prevent the transceiver from interferring the other communicating transceivers. If the selected channel is occupied by the other transceivers, the transceiver can not be

How to operate

transmitted even though you press PTT key. In frequency mode, press will +number key 4x3. The screen will display TXSET OF . Press or key to select BCL. Press will enter and press or to select "ON" or "OFF", and then press to confirm and press xIII to return to standby.

5. Wide/Narrow bandwidth selection can change the bandwidth while the transceiver works. In frequency mode, press have +number key 41.8 and the screen will display .

Press have enter, and the screen will display , press or to select W/N function. Press have enter, press or to select WIDE or NARR bandwidth, press have return to standby.

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

When the transceiver detects the signals from outside, activating this function will start scanning the transmitting CTCSS/DCS frequencies, and it will stop scanning when it searches the matching CTCSS/DCS frequency. Using this function can help you to confirm whether you are using the matching CTCSS/DCS frequency with other members in the same communicating group.

When the transceiver is in receiving status, press + number key and the screen will display enter, press or to select CTCSS/DCS, then press to confirm.



CTCSS/DCS frequency scan starts.

NOTE \land



- >> The transceiver is unable to start the function for scanning without detecting signals.
- >> Press Or To turn around the encoder switch to reverse the scan direction.
- >> The transceiver will display the detected CTCSS/DCS during the scanning. At this moment, press to replace the transceiver's pre-set CTCSS/DCS temporarily. Or you can store this detected CTCSS/DCS frequency permanently via MENU 8 and MENU 9 setting. Otherwise this temporary CTCSS/DCS frequency will be resumed to the original setting after resetting.

Setting voice guide (SETVOC)--- MENU 6

This menu is editable for following functions:

VOICE: Setting voice guide

ROGER: Prompt when beginning/ ending transmitting

BEEP: Setting beep prompt.

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

In frequency mode, press (+number key (and the screen will display) servec

How to operate

Press enter, and the screen will display SETUGE , press or to select VOICE function.

Press enter, press or and select ENGLSH/CHINES. Or select OFF to turn off the voice guide function. Then press to confirm and press return to standby.

NOTE A

>> If you want to turn off all keypad prompt, you may need to turn off both voice guide and beep prompt functions.

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

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

BOT: Press PTT and prompt transmits.

EOT: Release PTT and prompt transmits.

BOTH: Both press and release PTT, prompt transmits.

In frequency mode, press MEND + number key 6100E and the screen will display SETVOCE SETVOCE

Press enter, and the screen will display .SETUDE \$\overline{\circ}\$, press or to select ROGER function.

Press enter, press or to select OFF/BOT/EOT/BOTH.

Then press to confirm, and press III return to standby.



3. Beep prompt function is for the operating prompt error status prompt and the faulty condition reminders. We faithfully advise you to keep this function ON, so that you can detect or check the errors and faults in time.

In frequency mode, press + number key and the screen will display SETUGE S

Press enter, and the screen will display serves , press or to select BEEP function.

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

Then press menu to confirm and press EXIT return to standby.

Setting VOX (VOX)----MENU 7

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

In standby, press (HIND) + number key (TOX) and the screen will display (**OX) OFF (**)

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

How to operate

NOTE \land

- >> The higher level of VOX is set, the higher volume is needed.
- >> In SCAN and RADIO mode, the VOX function is not available, but just showing VOX mark on the upper right of the display screen.

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

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

There are 2 options:

R-DCS: Setting receiving DCS

R-CTC: Setting receiving CTCSS

1. In frequency mode, press HEND + number key RECES 5.

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

Press enter, press or to select OFF to turn off DCS, while select one DCS value from D023N to D7541. Press to confirm and press III return to standby.



NOTE \land

- >> This transceiver is with 105 groups DCS. Please see the appendix(2)D.C.S code sheet. DXXXN (from D023N to D754N) means positive code while DXXXI (from D023I to D754I) means negative code.
- 2. In frequency mode, press HEND + number key (and the screen will display RX SES).

 Press HEND enter, and the screen will display RX SES). Press or to select R-CTC function.

Press enter. Press or to select OFF to turn off CTCSS, while select one CTCSS value from

67Hz to 254.1Hz. Press to confirm and press XIII return to standby.

NOTE \land

>> This transceiver is with 50 groups CTCSS. Please see appendix(1) CTCSS frequency sheet.

Setting transmitting CTCSS/DCS (TX-CDC)--- MENU 9

There are 2 options: WWW.4U9Shop.com

T-DCS: Setting transmitting DCS

T-CTC: Setting transmitting CTCSS

1. In frequency mode, press HEW + number key Inc. and the screen will display TX=BBS . Press or to select T-DCS function. Press enter and press or to select OFF to turn off DCS, while select one DCS value from D023N to D754N. Press To confirm and press TXIII return to standby.

NOTE \land

- >> This transceiver is with 105 groups DCS. Please see appendix(2) D.C.S code sheet. DXXXN (from D023N to D754N) means positive code while DXXXI (from D023I to D754I) means negative code.
- 2. In frequency mode, press HEW + number key Ima and the screen will display TX=SES .

 Press HEW enter, and the screen will display TX=SES . Press or to select T-CTC function.

 Press HEW enter and press or and select OFF to turn off CTCSS, while select one CTCSS value from 67Hz to 254.1Hz. Press HEW to confirm and press EXII return to standby.

NOTE \land

www.409shop.com

>> This transceiver is with 50 groups CTCSS. Please see appendix(1) CTCSS frequency sheet.



Setting sidekey --- MENU 10

This menu is for the setting of the below two functions:

1. PF1

There are 5 options:

RADIO: FM Radio function

SCAN: Scan function

LAMP: Lamp function

BATT-V: Batterypack voltage prompt

OFF: Turn off the key function

2. PF2

There are 3 options:

ALARM: Distant urgency alarm function

SOS: SOS function

OFF: Turn off the key function

- 1.1 Programming PF1 as FM radio function:
- Turning on FM Radio: In standby mode, press PF1 to turn on. The screen will displays 145000 in FM radio will search the radio stations automatically while the green light is flashing. It will stop till a radio station is searched. FM radio will stay the searched radio station to receive.
- Tuning radio stations: In FM radio mode, press *R . And FM radio will automatically tune while the green light is flashing till a radio station is searched. And press / v to fine tune the radio stations.
- Saving radio stations: When a radio station has been searched, please press (MENU). And the screen will display (*SRUE) .

Then please input a number key between \square . The radio station will be stored into the chip. So that you can listen the stored radio station directly.

The transceiver is with two groups of FM radio channels for storing.

For example, if you want to save 88.1 MHz on channel 8 of the 1st group, please press + 8 cm + 1 to save this frequency on channel 8 of the 2nd group, firstly please select the 2nd storage.

Press # and the screen will display TEAM 5. So the transceiver will be switched to the 2nd storage. Then press 1940 + 1940 to save 88.1MHz to channel 8 of 2nd group.

In FM radio mode, press number key \bigcirc to listen to the saved radio station. You can switch over 1st and 2nd storage to listen to the saved radio station via \bigcirc key.

• Exit from the Radio: press PF1 again to exit from the radio mode.

NOTE 🛆

When FM radio is working, the current frequency or channel is still in standby mode. The transceiver will automatically return to working mode when receiving signals. After the signal disappears for 5 seconds, the transceiver will automatically return to FM radio mode. When FM radio is working, press FMI to check the current frequency. Finishing transmission, the transceiver will return to FM radio mode 5 seconds later.



1.2 Programming PF1 to scan function:

In standby, press PF1 to enter scan mode. (The requested scan mode can be programmed via Menu14). Press any key to stop scanning.

1.3 Programming PF1 to lamp function:

In standby, press PF1 to activate lamp function. And press PF1 again to turn off lamp.

1.4 Programming PF1 to BATT-V function:

In standby press PF1 to turn on the prompt for batterypack voltage. The screen will display the current batterypack voltage. .

NOTE \land

>> Press EXII key to exit from the current interface.

The above mentioned functions:

In standby, press HEND + number keys 1887 0 and the screen will display

Press enter, and the screen will display

PF1 . Press or to select one of SCAN/RADIO/LAMP/BATT-V/OFF functions. Press

to confirm. Press **EXII** return to standby.

2.1 Programming PF2 to alarm function:

In standby, hold on PF2 for 2seconds, the speaker will sound alarm and the transceiver will transmit alarm code, and meanwhile the red light flickers. Press PF2 again to exit this function.

2.2 Programming PF2 to SOS function:

In standby, hold on PF2 for 2seconds, and the transceiver will transmit alarm tone.

The above mentioned functions:

In standby, press (HEW) + number keys (1917) and the screen will display

Press enter, and the screen will display PFKEY . Press and the screen will display

PF2 . Press or select one of ALARM/SOS/OFF functions. Press to confirm, press

EXIT return to standby.

NOTE 🗥

>> The time of each transmission lasts for 10 seconds, and the interval for the next transmission is 5 mins. Please press any key to exit from this function.



Setting keypad autolock (AUTOLK) ---- MENU 11

There are two options: manual lock and auto lock. We can set most of the keys unworkable in order to prevent from pressing a key wrongly.

ON: "ON" means setting keypad autolock function. After setting this function, the keypad will be automatcally locked if there is no any operation in 15 seconds. Hold on for more than 2 seconds to unlock the keypad.

NOTE \triangle

>> Manual lock: In standby, hold on
#→ for more than 2 seconds to lock keypad; and press
#→ to unlock the keypad.

OFF: Turn off auto lock.

In frequency mode, press MENU + number keys SEEP and the screen will display

Press enter, press / to select ON for turning on autolock or OFF for turning off autolock.

Press (NEW) to confirm, then press (EXII) to return to standby.

Setting auto backlight (ABR) ---- MENU 12

This function is for operating the transceiver easily at nights.



>> When there are no any operations within five seconds on the keyboard, the backlight of the transceiver will be off automatically.

In standby, press HEND + number keys 1SEP 2SAVE and the screen will display + PBR

Press enter, press 🔼 / 🔽 to select ON for turning on auto backlight or select OFF for turning off backlight.

Press MENU to confirm, then press EXII to return to standby.

Setting frequency offset (FRQOFF) ---- MENU 13

There are 2 options:

- 1. SFT-D: Shift frequency direction 4095h0p.COm
- 2. OFFSET: Offset frequency
- 1. There are two options for the shift frequency direction setting as follow:



- **a.** The transmitting frequency is higher than receiving frequency. The shift frequency direction is positive(+).
- **b.** The transmitting frequency is lower than receiving frequency. The shift frequency direction is negative(-).
- c. Turn off the shift frequency direction function (OFF).

In standby, press HEND + number keys 1880 and the screen will display FRADEF .

Press enter, and the screen will display

Press enter, press / and select +/-/OFF. Press to confirm, then press III to return to standby.

NOTE A

>> The transmitting frequency by the offset frequency should be available within the original frequency range.

Please adjust the receiving frequency or the offset frequency accordingly, so that the transceiver can transmit on the available transmitting frequency.

Offset frequency is the difference between the transmitting frequency and the receiving frequency. The offset frequency range for the transceiver is from 0 to 69.950MHz.

In standby, press (HEND) + number keys (1802) 3801 and the screen will display (1802) FREQUETY (1802)

Press enter, the screen will display FREST . Press key, the screen will display

Press enter, press / or number keys to select the desired offset frequency.

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

The offset frequency setting and the shift frequency direction are ONLY workable in frequency mode, in order to program the transceiver to work separately on different transmitting and receiving frequencies, please follow the below steps accordingly:

Steps:

- 1. Setting receiving frequency.
- 2. Setting shift frequency direction and offset frequency.
- 3. Setting CTCSS/DCS frequency (if necessary).

For example, the receiving frequency of a repeater is 460.025MHz. The receiving CTCSS is 69.3Hz. The transmitting frequency is 450.025MHz.

1. Setting receiving frequency in frequency mode, input 41xs + 5003 + 0 + 0 + 23xV2 + 5005 in sequence.



- 2. Setting shift frequency direction: in frequency mode, enter MENU 13 "SFT"(Please refer P33) and select "+" direction.
- 3. Setting offset frequency: in frequency mode, enter MENU 13 "OFFSET" (Please refer to P33) and select "10,000".
- **4.** Setting transmitting CTCSS/DCS: in frequency mode, enter MENU 9 "T-CTC" (Please refer P26 and select "69.3").

NOTE A

>> In order to use this function easily, you can memorize the above frequency and related data into the specified channels manuall or via software. Please refer to MENU 19(P43-P44) to learn how to memorize the channels.

www.409shop.com

Setting scan mode (SC-REV) ---- MENU 14

In order to receive the calling, the transceiver will stop scanning on the frequency(or memory channel) that is detected signals. According to the selected restored method, the transceiver will resume or stop scanning. There are three optional scan modes:

TO: After a signal is detected, the transceiver will resume scanning if there is no operation in 5 seconds.

CO: After a signal is detected, the transceiver will stop scanning. 3 seconds after a signal disappears, the transceiver will resume scanning.

SE: The transceiver will stop scanning when a signal is detected.

In standby, press (+ number keys (41%) and the screen will display (SC-REV)

Press enter, press / To select TO, CO or SE.

Press to confirm, then press III to return to standby.



>> Holding on *R for 2 seconds to enter scan mode.

MSG. WELCOME

PONMSG S

Setting power on message (PONMSG) ---- MENU 15

There are three optional display modes when powering on:

FULL: Full display BATT-V: Display the current batterypack voltage

In standby, press MEND + number keys SEP 5003 and the screen will display

Press enter, press / V to select FULL/BATT-V/ MSG.

Press MENU to confirm, then press EXII to return to standby.

Setting stopwatch function (SECOND) ---- MENU 16

In standby mode, press (INIII) and number keys (INIII) GIONE, the screen will display +SECOND

Press enter, and then press / V to select ON or OFF. Press (EXII) to confirm, then press (EXII) to return to standby.

How to use stopwatch:

When the stopwatch function is turned on, press and once to count time. Press any key to stop counting time. Press # to resume.

NOTE

>> When the stopwatch stops counting time, press any key (except #===) to exit stopwatch function.

Working mode (CH-MDF) --- MENU 17

There are two working modes selectable as follow:

- 1. Frequency mode (FREQ)
- 2. Channel mode
- ①Channel mode (CH) ②Frequency + channel number mode (CH FREQ)
- 3 Channel name mode (NAME)

NOTE \land

- >> There is password workable to be used to switch between the frequency mode and the channel mode, while there is no password set among the three modes in channel mode.
- >> The switching password is set via programming software.
- >> The switching password is invalid(switching password function is cancelled) when it is made up of "000000".

 The switching password is valid when it is made up of other numeric characters.

Frequency mode (FREQ) and Channel mode changeable

①Invalid password

In standby, press (+ SSIP (), the screen will display ()

Press enter, then press / to select your desired working mode, and then press to confirm.



② Valid password

In standby, press HEW + ISEP TOX, the screen will display CHERES .

Press HEW enter, then press / Tox to select your desired work mode. Press HEW to confirm, the screen will display six bars . After inputting password, the working mode is changed to the mode you selected.

NOTE A

- >> Please make sure you have memorized at least one channel, before you do the switch between the frequency mode and the channel mode.

www.409shop.com

Editing channel name (CHNAME) --- MENU 18

About the edited channel name,

- 1. Channel name can be made up of 26 characters(A-Z) or 10 Arabic numerals(0-9) freely.
- 2. The maximum channel name is made up of 6 digits(from 1 digit to 6 digits).
- 3. Selecing (-) means this digit is blank, which is only acceptable by manual editing.

Editing method:

- 1. Via programming software.
- 2. Manully program through the keypad.

When you edit channel name, please note that:

- 1. At least one channel has been memorizied in the transceiver.
- 2. The transceiver works in channel mode.
- 3. During editing the channel name, press key to change character (between capital letters, lower-case letters or special symbol), press / v to select the characters, and press relationships to select the edited position.

Please see the editing steps manually as follow:

1. If the transceiver works in frequency mode, please set the working mode as CH or CHFREQ mode (See Menu 17).



- 3. After successfully finishing editing the channel name, please change the display mode to "NAME" mode via MENU 17.

www.409shop.com

Setting memory channels (MEM-CH) ---- MENU 19

When the transceiver works in frequency mode or in standby mode, you can input the frequency and the parameter that you want to memorize into the channels.

Press HELD + number keys SEEP Grand, and the screen will display HELD S

Press enter, press / we to select channel number. And then press to memorize. There will be voice prompt "Receiving memory" when the memorizing is successful.

Press III to exit. This channel is co-frequency channel. If you want to memorize the dis-frequency channel, please repeat the above steps. After pressing III to confirm the memorized channel, the voice will prompt "Transmitting memory".

For example, if you want to memorize the receiving frequency 450.025MHz and the transmitting frequency 460.025MHz into channel 20. The operation procedures are as followings:

- 1. When the transceiver works in frequency mode, input 41x8 500 0 0 28AVE 5000, MENU + (SSIP) 90000 + MENU, then press 28AVE 0 or / To select CH-20. Press MENU key to confirm. Voice will prompt when the memorizing is successful. Press EXII to exit.
- 2. Then input 4188 6101E 0 0 28AVE 5CD3, MENU + 1SETP + 910CD + MENU + MENU to memorize this frequency into the channel. The transceiver will voice prompt "Transmitting memory". And press EXII to exit.



3. The dis-frequency channel is memorized at last.

NOTE A

- >> If you want to memorize CTCSS/DCS, DTMF functions into the specified channel, please set the functions ahead, so that these functions can be memorized together with the receiving and transmitting frequencies into this spacitied channel.
- >> Transmitting memory only can be memorized the transmitting frequencies. If you want to memorize the other functions into the memory channels, please memorize them in the Receiving memory.
- >> If you want to re-program the stored channel, please delete it firstly before you program the transmitting memory and receiving memory. If not, there is only available for the receiving memory, and default by the previous transmitting memory.
- >> You can also set the parameters via programming software besides manual memorizing.

Deleting channel (DEL-CH) ---- MENU 20

In standby, press MENU + number keys 28ME 0 , and the screen will display FEEL-GH 3

Press MENU enter, press / To select the channel that you want to delete, press MENU to confirm.

The selected channel and channel parameters are deleted. Press [XII] to return to standby.

Editing ANI ID CODE (IDEDIT)----MENU 21

In frequency mode, press (MENU) and number keys (2811), the screen will display (1858).

Press Level enter, input your desired ANI ID Code directly. And then press Level to confirm, press to return to standby.

NOTE /

>> ANI ID code can be edited by 3-6 digits freely. ANI ID code is ranged from 000-999999.

Setting DTMF (SETDTF)----MENU 22

There are five options:

PTTDLY: Setting delay time for transmitting ANI ID CODE

OPTSIG: Setting DTMF signaling

ART: Setting ringtime

DTMFST: Setting DTMF sidetone

PTT-ID: Setting the transmitting modes for ANI ID CODE

45



- 1. Setting ANI ID code means the ANI ID code transmitting status when pressing PTT key once to communicate.
 - ①1-30: Preset ANI transmitting delay time from 1 to 30. Unit:100ms
 - ② OFF: Transmitting ANI ID code manually
 In standby mode, press ANI and number keys 25ME, the screen will display 15METTED.

 Press ANI enter, and the screen will display 15METTED.

 Press ANI D code from 1 to 30. Or select OFF to transmit ANI ID code manually. Press ANI To confirm, then press ANI to return to standby.
- 2. Select if you want to turn on DTMF function. If you select this function, selective calls, group calls and all calls functions are available.

In standby mode, press and number keys 2sw 2sw, the screen will display FFTDLF.

Press enter, and the screen will display FFTDLF.

Press enter, and then press / / * to select OPTSIG function.

Press enter, and then press / / * to select "ON" to turn on DTMF signaling or "OFF" to turn off DTMF signaling. Then press to confirm, press * INIIII to return to standby.

3. The mute mode means the mode of turning on the speaker. There are three options for turning on the speaker:

46

- QT: When the transceiver receives the signal that is strong enough to open squelch and is matched with CTCSS/DCS, the speaker will be opened. If the transceiver is not set CTCSS/DCS, the speaker will be opened when the transceiver receives the signal that is strong enough to open squelch.
- QT + DT: When the transceiver receives the signal that is suitable for QT conditions and is matched with DTMF signaling, the speaker will be opened.
- QT X DT: When the transceiver receives the signal that is suitable for QT or QT+DT conditions, the speaker will be opened.

In standby mode, press and number keys 250 , the screen will display [SETTDE 2016].

Press enter, and the screen will display FTTDLF . Press 🔼 / 🔽 to select SPMUTE function.

Press enter, and then press / To select one of QT or QT+DT or QT X DT.

Then press to confirm, and press III to return to standby.

4.Ringtime setting means the speaker will sound clear ring prompt when receiving correct DTMF encoding signaling.

In standby mode, press and number keys 2 , the screen will display FETTLE ?

Press enter, and the screen will display FITTLE . Press / V to select ART function.

Press enter, and then press / To select ringtime from 0 to 10.

Then press INTIN to confirm, and press INTIN to return to standby.



5. DTMF sidetone setting means if the speaker is turned on when transmitting DTMF signaling and hear the according DTMF tone from the speaker.

There are 4 options as followings:

- ①DT-ST: Key sidetone is turned on when transmitting.
- ②ANI-ST: ANI ID code sidetone is turned on when transmitting.
- ③DT+ANI: Both of key sidetone and ANI ID code sidetone are turned on when transmitting.
- 4 OFF: Turn off all.

In standby mode, press (MEN) and number keys (28AVE), and the screen will display (SETTIDE 28).

Press enter, and the screen will display FETTLE ? . Press 🔼 / 🔽 to select DTMFST function.

Press enter, and then press / To select one function of DT-ST/ANI-ST/DT+ANI/OFF.

Then press MENU to confirm, and press EXII to return to standby.

- 6. PTT-ID is setting the modes for transmitting the ANI ID CODE. There are BOT, EOT and BOTH selectable when transmitting the ANI ID CODE.
 - ①BOT: Press PTT key to tramsmit ANI ID CODE.
 - ②EOT: Release PTT key to transmit ANI ID CODE.
 - ③BOTH: Both press PTT and release PTT key to transmit ANI ID CODE.

In standby mode, press (and number keys (SANE) , and the screen will display (SETTLE)

Press enter, and the screen will display FTTTDF ? Press / To select PTT-ID function.

Press enter, and then press 🔼 / 🔽 to select one function of BOT/EOT/BOTH.

Then press (MENU) to confirm, and press EXII to return to standby.

All calls, group calls and selective calls

There are ANI ID code transmission, ANI ID code edit and DTMF decoding functions. Without the assistance of the other communication equipments, the all calls, group calls and selective calls are available between the groups.

Before using all calls, group calls and selective calls function, you need to set as followings:

1. ANI ID CODE edit Note: Every transceiver in the same group should be edited a unique ANI ID code.

ANI ID CODE:ID--XXX(3 digits) ID--XXXX(4 digits) ID--XXXXX(5 digits) ID--XXXXXX(6 digits)

ANI ID CODE mark

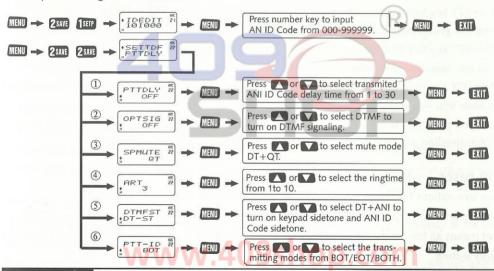
From 1 to 9 group,
Maximum: 9 groups

Maximum: 10000000 digits

This is how to set ANI ID CODE.



The steps of setting ANI ID CODE:



NOTE \land

>> Any transceiver in the same group should be with the same frequency point and parameter.

a. How to use all calls function:

Hold on PTT key to transmit. After transmitting ANI ID Code, input *R + # keys directly.

b. How to use group calls function:

Hold on PTT key to transmit. After transmitting ANI ID Code, input "Group NO." *R + #--

c. How to use selective calls function:

Hold on PTT key to transmit. After transmitting ANI ID Code, input the ANI ID Code of the selective transceiver that you want to speak to.

Note: If you press number key to transmit DTMF code while holding on PTT key to transmit, the transmission will be delayed for 2seconds. And then the transmission will stop.

Setting reset ---- MENU 23

There are two options for the reset operation-VFO reset and ALL reset.

VFO reset means all the functional parameter set in frequency mode resumes to the factory setting.

ALL reset means all the functional parameter set in both frequency mode and channel mode resume to the factory setting.



1. VFO reset:

In standby mode, press HEW + number keys 25ME 35M, the screen will display RESET DISPLAY RESET OF THE Press HEW again to confirm, and the screen will display RESET OF THE RESET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE PRESS HEW AGAIN TO CONFIRM AND THE SCREEN WILL BE SET OF THE SC

After this operation, the transceiver will be restarted automatically.

2. All reset (ALL):

Priority scan

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

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

Scanning sequence as following chart:

$$\sim$$
 CH1 \rightarrow CH6 \rightarrow CH2 \rightarrow CH6 \rightarrow CH5 \rightarrow CH6 \rightarrow CH6 \rightarrow CH5 \rightarrow CH6 \rightarrow

If the transceiver checks the signal on priority channel, it will call out its frequency. The priority scan channel can be selected via programming software.

Setting reverse frequency function

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

How to operate reverse frequency function:

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

Low voltage prompt

When the voltage is low, there is prompt accordingly. And the backlight will flash every 5 seconds. Meanwhile the transceiver will sound "Di Di".



Adding scanning channel

NOTE \land

- >> Only the channel that is added to the scan list can be scanned.
- >> Add scanning channel via programming software.

wire-clone setting	 a. Install batterypacks on source radio and target radio and connect them via wireclone cable. b. And then power target radio on. c. Power on the source radio and hold on the MONI key at the same time. d. Red LED on the source radio flashes, while the green LED on the target radio flashes, it shows the wire cloning is completely proceeding. 	Transmitting red LED flashing means transmitting data when wire cloning. Transmitting red LED distinguishes after completing wire-clone, and the transceiver returns to standby. Transmitting red LED lasting flashing means the wire-clone is failed and the transceiver returns to standby mode.			
	WWW.409sh Target radio	Receiving green LED flashing means receiving data when wire cloning. Receiving green LED extinguishes after completing wire-clone and the transceiver returns to standby.			

Transmit overtime alarm

Transmit overtime alarm is the setting to alarm the user that the transmitting time is over the preset value, and the transmitting is interrupted. Press PTT to resume the transmission.(Please refer MENU 6 to set the transmit overtime.)

Working with repeater

Most Repeaters are working in the Dis-channel mode, which the Receive frequency and the Transmit frequency are offset working. Meanwhile, the Repeater is programmable with the matching CTCSS/DCS and the related parameters.

This series of transceiver is available to work with the Repeater both in Frequency mode and Channel mode, which is programmable through the keyboard and via the programming software.

Please refer to the following steps about programming the channels to work with the repeater.

- a. Set the transceiver work in the Frequency/VFO mode.
- b. Input the Receive frequency through the keyboard. (The Receive frequency of this transceiver is the Transmit frequency of Repeater.)
- c. Set the related parameter you need for this frequency, like MENU 8-9 CTCSS/DCS, MENU 13 Offset frequency, MENU 13 Shift frequency direction and others.



- d. Memorize this frequency and the parameter into the specified channel by MENU 19.
- e. Repeating above settings to set the Transmitting Memory.

NOTE /

>> After setting the Offset frequency and the Shift frequency direction, you don't need to memorize the Transmit frequency.

After above, the settings to work with repeater are successful. Switch the working mode to Channel mode, call out this specified channel you have memorized, the transceiver can join in the repeater. For example, the Receive frequency range of repeater is 442.850MHz, the Offset frequency is 5.00MHz, the Shift frequency direction is "-", the T-CTCSS is 103.5Hz, the specified channel CH-20. Please see the steps as following:

- a. Power on the transceiver, and set it to work in Frequency mode. (Please press to switch to Channel mode.)
- b. Press + 1880 + 1880 to set the Frequency step. Press / key to select the desired frequency step, and then press to confirm, finally press to return to standby. (Please refer to MENU 1 on Page 17.)
- c. Input the frequency 447850 through the keypad, and then set other parameters as following:

Press MEND + 0 + 41xs + MEND to set the Transmitting Power. Press / key to select TXP and then 56

press to enter into the setting for TXP. Then press / key to select the High or Low power, press to confirm, finally press to return to standby. (Please refer to MENU 4 on Page 19.)

Press MEND + 0 + 9000 + MEND to set the T-CTCSS. Press / key to select the TX-CTC and then press MEND to enter into the setting for T-CTCSS. Then press / key to select the desired T-CTCSS code 103.5Hz, and then press MEND to confirm, finally press EXII to return to standby. (Please refer to MEND 09 on Page 27.)

Press Press

Press NEW + 3511 + 3511 + 1 to set the Shift frequency direction. Press / V key to select the SFT-D and then press to enter into the setting for Shift frequency direction. Then press key to select the desired direction" -", and then press to confirm, finally press EXII to return to standby. (Please refer to MENU 13 on Page 33-34.)

Press MENU + SSIP + STARD + MENU to Memory channel. Press / key, rotate the channel encoder, or directly input 2sare + 0 through the keyboard to select the specified channel CH-20, and then press 57



The to confirm, there is voice prompt "Receiving memory" (it prompts when the Voice guide is ON.). Finally press It to return to standby. (Please refer to MENU 19 on Page 43-44.)

After above, the settings for memory channel to work with the repeater is done.

If necessary for the channel name editing, please press IFFU + TOP to switch the working mode to Channel mode. Select the specified channel CH-20, and then press IFFU + IFFU to change the mode to NAME. Press / to select NAME, and then press IFFU to confirm, then finally press IFFU to return to standby. Then press IFFU + IFFU to edit the channel name. Press / to edit the characters of the name, and then press IFFU to confirm, then finally press IFFU to return to standby. (Please refer to MENU 17 on Page 39-40 and MENU 18 on Page 41-42.)

How to use the intelligent charger

- 1. Insert the AC plug into the 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 \land

- >> When inserting the exhausted batterypack, the intelligent charger will precharge the batterypack in trickle form. The RED indicator will be flashing at the moment. This process is lasting for 10-20 minutes. And then the charging is normal. Red indicator continuously flashes. And then the GREEN indicator flashes when the charging completes.
- >> Trickling charging the exhausted batterypack is in order to protect lithium-ion batterypack better.

Programming guide for KG-889 software (via USB prgramming cable)

- a. Download, unzip and install the USB driver according to different operating system.
- b. Restart your computer, and it shows the driver is installed successfully.
- c. Download and unzip the matching programmiing software.
- d. Connect the trannsceiver and open the software.
- e. Power on the transceiver and open the software.
- f. Read from the radio to check the connection.
- g. Set the parameter and funcions accordingly.
- h. Write to the radio.

NOTE A

- >> If you get the message "failed connection" when you try to read from the radio, please check the first five steps and the communication ports accordingly.
- >> Please note that once the first three steps are done well, the com port will be selected automatically when you open the software. However, according to the different computer settings, the com port may be needed to re-set
- >> Please determine the port assignment from the device manager of the computer and select the correct communication port, which is available for the connection.
- If the connection is still not OK, please try another cable or another transceiver on another computer to double check.

www.409shop.com

Trouble shooting

Please check carefully if your transceiver is faulty according to the below chart.

If you maintain you have troubles with the transceiver, you can reset it, which will help you solve the problems very often.

Problem	Possible Solution					
Transceiver can not be powered on.	 The batterypack power may be exhausted. Please change a new one or re-charge it. The batterypack may be not installed properly. Please re-install it. 					
After charging, the hours for using batterypack are not normal.	The batterypack life is dued. Please change a new one.The batterypack is not fully charged. Please make sure it is fully charged before removing from the charger.					
Receiving indicator continuously flashes. But there is no tone from the speaker.	 Please check if the volume is adjusted to maximum. Please check if you set the different CTCSS/DCS with the other group members. Please check if you set the correct mute mode. 					
Keypad is not workable.	Please check if the keypad is locked.Please check if any key is blocked.					
In standby, the transceiver transmits automatically without pressing PTT key.	>> Please check if you turn on the VOX function and its level is too low.					



Problem	Possible Solution				
Some functions can not be memorized.	» Please check if the work mode is channel mode. In channel mode, some functions only can be memorized via programming software.				
You can hear the tones from the non-member of your group	>>> Please change CTCSS/DCS frequencies.				

www.409shop.com

Technical parameter

Appendix 1

CTCSS									
1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

www.409shop.com

Technical parameter



Appendix 2

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

Technical parameter

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

www.409shop.com

Technical specification

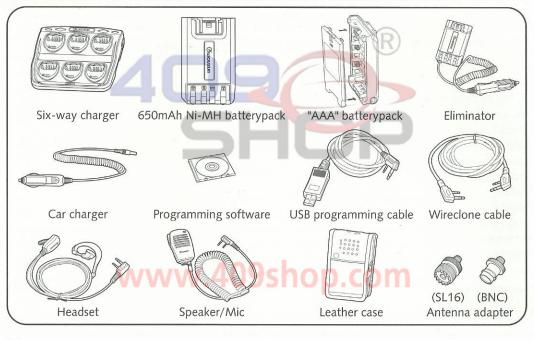


Frequency range (suitable for	VHF: 66-88MHz/136-174MHz/216-280MHz				
different countries or areas)	UHF: 400-470MHz/400-480MHz/420-520MHz/450-520MHz				
Memory channels	199 channels				
Voltage	7.4V DC				
Operating temperature	-30C(-22F) to +60C(140F)				
Work mode	Co-channel or Dis-channel simplex				
Output power	VHF: 5W / UHF:4W				
Modulation	F3E(FM)				
Maximum frequency deviation	≤ ±5KHz				
Spurious radiation	< -60dB				
Stability	±5 ppm				
Sensitivity	< 0.2 μV				
Audio power	≥ 700mW				
Waterproof	IP55				
Weight	218g				
Size	115 X 54.5 X 34 (mm)				



>> Specifications are subject to change without notice.

Optional accessories



Announcement



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

www.409shop.com

English Version: KG-889-1105-V1