Thanks for buying the ⌀WOUXUN KG-699E series transceiver. This transceiver offers latest in design, multi-functionality, stable behaviour and easy operation. We believe you will be pleased with the high quality and dependable features for all your communication needs.

User Safety, Training, and General Information

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

Compliance with RF Energy Exposure Standards

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

NOTE ⚠

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

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

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

Transmit and Receive

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

Hand-held radio operation

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

farther away from your head.

Body-worn operation

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

Antennas & Batteries

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

Approved Accessories

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

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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 **WOUXUN** or your **WOUXUN** 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 harmfu l 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
ⒸWOUXUN Wireless dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

Precautions
Only qualified technicians are allowed to maintain this product.
Do not use the radio or charge a battery in explosive areas such as coal gas, dust, steam, etc.

Switch OFF the radio while refueling or parking at 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.

CE Caution:
Hereby, **ⒸWOUXUN** 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 Industrial Park, Quanzhou, Fujian 362000, China

Contents

Contents

Unpacking and checking of your equipment

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

Supplied accessories

Transceiver	Highgain antenna	Li-ion batterypack	Intelligentcharger	Adapter

Beltclip	Handstrap	User's manual	Service card
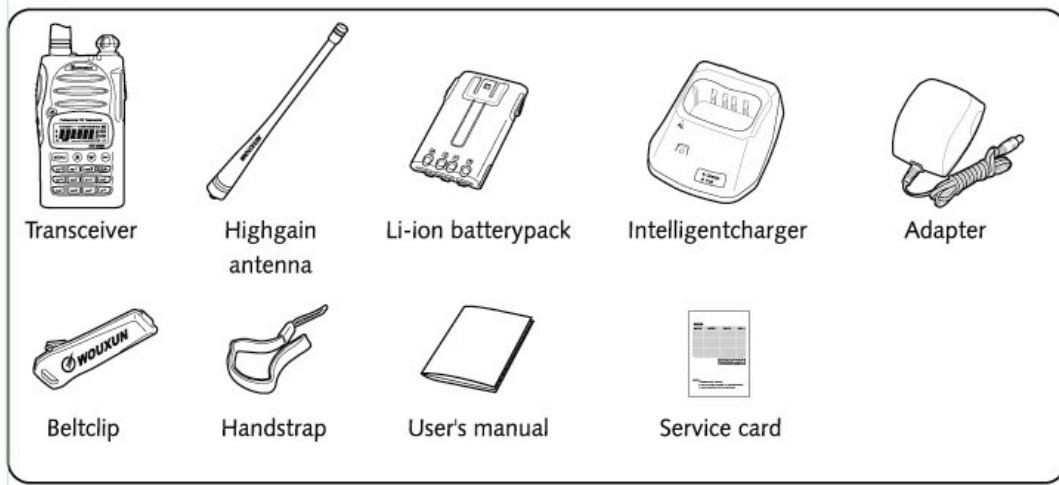
Description of functions

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1. VHF: 66-88MHz   VHF: 136-174MHz   VHF: 245-246MHz
   UHF: 300-350MHz   UHF: 350-390MHz   UHF: 400-470.9875MHz   UHF: 450-520MHz
2. Output power: 5W VHF/ 4W UHF
3. Frequency mode, VHF Dual frequencies or UHF Dual frequencies display and standby.
4. In channel mode, VHF Dual channels or UHF Dual channels display and standby.
5. Inspection, monitor, alarm, stun, kill and revive.
6. DTMF encoding and decoding
7. ANI code (caller ID)
8. VOX
9. All calls, group calls and selective calls function
10. Calling ring function
11. 8 groups rolling voice scrambler
12. 105 groups DCS / 50 groups CTCSS
13. Voiceguide (English/Chinese)
14. Wide/Narrow bandwidth selection (25KHz/12.5KHz)
15. Three color backlight displays
16. Channel order, channel frequency, channel name multi display mode
17. Reverse frequency function

Description of functions

18. Distant urgency alarm function
19. Multi scan function
20. FM radio with frequency display
21. Channel step selection (5/6.25/10/12.5/25KHz)
22. High/Low power selectable (VHF:5W/1W UHF:4W/1W)
23. High/Low power changeable when on transmitting
24. Intelligentcharger (Warning sound and dualcolor light)
25. TX/RX splitselection (0-69.950MHz)
26. Set frequencyshift direction
27. Busy channellockout
28. Multi display mode when power on (full screen/Batt-V/others)
29. Lowvoltage batterypack voiceprompt
30. Keyboard lock (auto/manual)
31. Transmit overtime prompt
32. Adding channelscan function
33. Programmable by computer
34. Menu/Channel reset
35. Wireclone function
36. Menu/Channel reset

Getting started

Professional FM Transceiver

LCD display

On the display you will see various indicators that show what function you have selected. Sometimes you may not recall what those indicators mean or how to select them, in such a case, you can refer to the table below.

Split
Split
DCS
DTMF-encoding and-decoding
CTCSS
(A/B) Switch to desired frequency
High/Low power transmit
Busychannel light

Reverse frequency
Dual standby indicator
VOX
Bandwidth indicator
Scrambler state
Batterypack status indicator
Menu order / Channel order
Menu order / Channel order
Keypadlock

CT T DCS + − R TDR VOX S N 🔒
HL BUSY
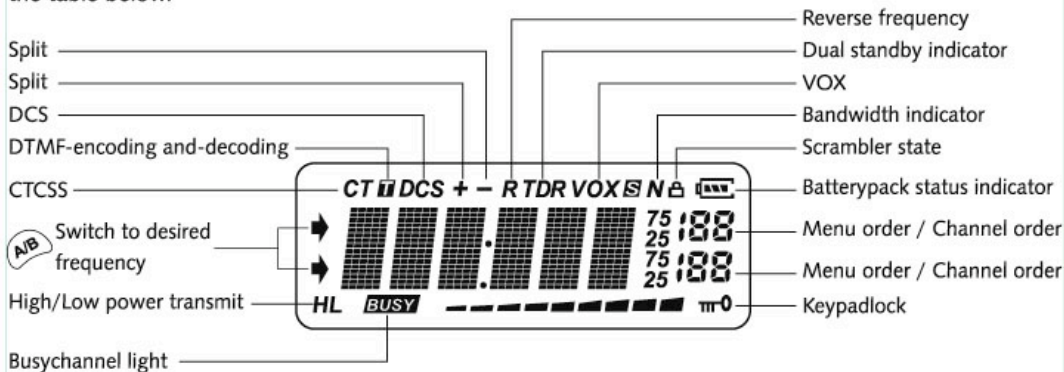
Note:

Batterypack capacity indicator (full)

Batterypack capacity spare indicator

Batterypack capacity is exhausted

Receive signal meter

Getting started

Description of transceiver

Topkey: Distant urgency alarm

Antenna

A channel receive and transmit light

A or B channel switchkey

Screen / LCD display

Functionkey

Numberkey

Up / Downkey
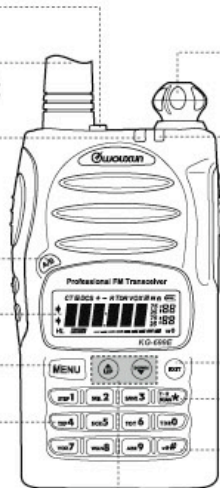
Powerswitch / Volumecontrol

B channel receive and transmit light

Exitkey

Reverse frequency / Scankey

Lockkey

05

PTT (Push-To-Talk) key

Sidekey 1: radio, scan

Sidekey 2: monitor

Spealer/Microphonejacks

Batterylatches

06

Getting started

■ **Speed search**

When setting each function or parameter, press the (UP) or (DOWN) key one time can speed search the function or parameter.

■ **DTMF encoding**

This transceiver has DTMF encoding. By pressing the right numberkey on transmit you can choose the right DTMF tone which you want to TX.

MENU	UP	DOWN	EXIT
A	B	C	D

■ **Switch workingmode**

Channelmode ← [MENU] + POWER ON → Frequencymode

Shortcut operation sheet

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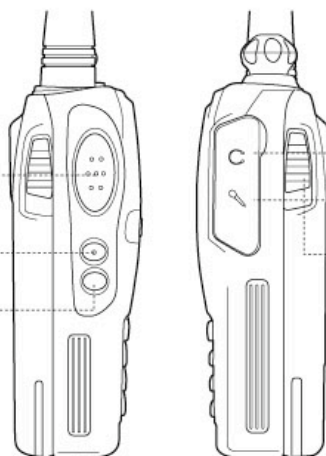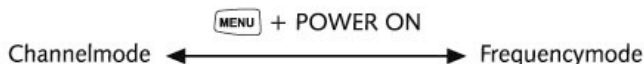| Function order	Function name	Enter function set	Screen display	Select parameter	Selectable parameter-explanation	Confirm	Back	See page
0	Setting dual-standby	MENU → TDR 0	• TDR ON	Press (UP) or (DOWN) key / Select parameter	ON: Turn on dual standby / OFF: Turn off dual standby	MENU	EXIT	P13 -14
1	Setting channel step	MENU → STEP 1	• STEP 6.25K	Press (UP) or (DOWN) key / Select parameter	5 kinds of channel steps / 5K/6.25K/10K/12.5K/25K	MENU	EXIT	P14 -15
2	Setting squelchlevel	MENU → SQL 2	• SQL-LE 5	Press (UP) or (DOWN) key / Select parameter	Squelchlevel from 0-9	MENU	EXIT	P15
3	Setting batterypack savemode	MENU → SAVE 3	• SAVE ON	Press (UP) or (DOWN) key / Select parameter	ON: Turn on save function / OFF: Turn off save function	MENU	EXIT	P16
4	Selecting transmit-power	MENU → TXP 4	• TXP HIGH	Press (UP) or (DOWN) key / Select parameter	H: High power (VHF:5W/UHF:4W) / L: Low power (1W)	MENU	EXIT	P16
5	Setting 8 groups rolling voice encrypt	MENU → SCR 5	• SCR OFF	Press (UP) or (DOWN) key / Select parameter	1 to 8: 8 kinds of scrambler mode / OFF: Turn off scrambler	MENU	EXIT	P17
6	Transmit over timer	MENU → TOT 6	• TOT 60	Press (UP) or (DOWN) key / Select parameter	TOT has 40 levels in steps of 15 seconds. / OFF: Turn off TOT.	MENU	EXIT	P17 -18
7	Setting VOX	MENU → VOX 7	• VOX OFF	Press (UP) or (DOWN) key / Select parameter	VOX has levels from 1 to 10. / OFF: Turn off VOX.	MENU	EXIT	P18
8	Setting bandwidth	MENU → W&N 8	• WN NARR	Press (UP) or (DOWN) key / Select parameter	WIDE: 25KHz. / NARR: 12.5KHz.	MENU	EXIT	P18
9	Setting auto backlight	MENU → ABR 9	• ABR 3	Press (UP) or (DOWN) key / Select parameter	auto backlight has 5 levels in steps of 1 second. / OFF: turn off autobacklight.	MENU	EXIT	P18 -19

Shortcut operation sheet

Step	Sequence	Display	Action	Description	Page
10 Setting receive DCS	MENU → STEP 1 → TDR 0 →	R-DCS OFF	Press ▲ or ▼ key Select parameter	105 groups DCS (D023N-D7541) OFF: Turn off DCS	MENU → EXIT P19
11 Setting receive CTCSS	MENU → STEP 1 → STEP 1 →	R-CTCSS OFF	Press ▲ or ▼ key Select parameter	50 groups CTCSS (67-254.1Hz) OFF: turn off the CTCSS	MENU → EXIT P20
12 Transmit DCS	MENU → STEP 1 → SQL 2 →	T-DCS OFF	Press ▲ or ▼ key Select parameter	105 groups DCS (D023N-D7541) OFF: Turn off DCS	MENU → EXIT P20
13 Transmit CTCSS	MENU → STEP 1 → SAVE 3 →	T-CTCSS OFF	Press ▲ or ▼ key Select parameter	50 groups CTCSS (67-254.1Hz) OFF:turn off the CTCSS	MENU → EXIT P21
14 Setting voiceguide	MENU → STEP 1 → TXP 4 →	VOICE CHINES	Press ▲ or ▼ key Select parameter	CHINES: Chinese ENGLSH: English OFF: Turn off voiceguide	MENU → EXIT P21
15 Setting beepprompt	MENU → STEP 1 → SCR 5 →	BEEP ON	Press ▲ or ▼ key Select parameter	ON: Turn on beepprompt OFF: Turn off beepprompt	MENU → EXIT P22
16 ANI ID CODE switch	MENU → STEP 1 → TOT 6 →	ANI-SW ON	Press ▲ or ▼ key Select parameter	ON: Turn on ANI ID CODE OFF: Turn off ANI ID CODE	MENU → EXIT P22
17 ANI CODE edit	MENU → STEP 1 → VOX 7 →	ANI-ID XXXXXX	Through programming software	Personal ANI ID CODE can be selectable from 100-99999	MENU → EXIT P23
18 Setting ringtime	MENU → STEP 1 → W&N 8 →	RING 3	Press ▲ or ▼ key Select parameter	Ringtime has 10 levels in steps of 1 second. OFF: Turn off ring prompt.	MENU → EXIT P23
19 Setting DTMF sidetone	MENU → STEP 1 → ABR 9 →	DTMFST DT-ST	Press ▲ or ▼ key Select parameter	DT-ST: Turn on the sidekey tone ANI-ST: Turn on the ANI sidetone DT+ANI: Turn on sidekey and ANI tone OFF: Turn off all	MENU → EXIT P23-24

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Step	Sequence	Display	Action	Description	Page
20 Setting scan mode	MENU → SQL 2 → TDR 0 →	SC-REV TO	Press ▲ or ▼ key Select parameter	3 kinds of scan mode TO: Time mode scan CO: Carrier mode 1 scan SE: Carrier mode 2 scan	MENU → EXIT P24
21 Setting DTMF signal	MENU → SQL 2 → STEP 1 →	OPTSIG OFF	Press ▲ or ▼ key Select parameter	ON: Turn on DTMF signal OFF: Turn off DTMF signal	MENU → EXIT P25
22 Setting signal information	MENU → SQL 2 → SQL 2 →	S-CODE 1	Press ▲ or ▼ key Select parameter	15 groups signal information mode	MENU → EXIT P31
23 Setting mutemode	MENU → SQL 2 → SAVE 3 →	SPMUTE QT	Press ▲ or ▼ key Select parameter	3 kinds of mutemode QT/QT+DT/QT&DT	MENU → EXIT P32
24 Press PTT key transmit	MENU → SQL 2 → TXP 4 →	PTT-ID OFF	Press ▲ or ▼ key Select parameter	4 kinds of PTT ID BOT/EOT/BOTH/OFF	MENU → EXIT P32-33
25 Setting signal information code delay	MENU → SQL 2 → SCR 5 →	PTT-LT 5	Press ▲ or ▼ key Select parameter	Permit transmit signal information code delay time from 1-30. unit: 100ms 0: Turn off signal information code delay transmit	MENU → EXIT P33
26 Setting transmit segment when in dualstandby	MENU → SQL 2 → TOT 6 →	TDR-AB A	Press ▲ or ▼ key Select parameter	A: A segment B: B segment	MENU → EXIT P34

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Shortcut operation sheet

#	Function	Operation sequence	Display	Parameters	Page
27	Setting A segment channel display mode	MENU → SQL2 → VOX7 → MDF-A FREQ → MENU → Press ▲ or ▼ key / Select parameter	CH: Channel order display / FREQ: Channel frequency+channel order display / NAME: Channel name+channel order display	→ MENU → EXIT	P34-35
28	Setting B segment channel display mode	MENU → SQL2 → W&N8 → MDF-B FREQ → MENU → Press ▲ or ▼ key / Select parameter	CH: Channel order display / FREQ: Channel frequency+channel order display / NAME: Channel name+channel order display	→ MENU → EXIT	P35-36
29	Side key 1 editable (PF1)	MENU → SQL2 → ABB9 → PF1 RADIO → MENU → Press ▲ or ▼ key / Select parameter	RADIO: FMradio turn on key / SCAN: Scan functionkey / OFF: Turn off the function	→ MENU → EXIT	P36-37
30	Distant urgency alarm (TOP KEY)	MENU → SAVE3 → TDR0 → PF2 ALARM → MENU → Press ▲ or ▼ key / Select parameter	ALARM: Distant urgency alarm / OFF: Turn off the function	→ MENU → EXIT	P37-38
31	Busy channel lockout	MENU → SAVE3 → STEP1 → BCL OFF → MENU → Press ▲ or ▼ key / Select parameter	ON: Turn on busy channel lockout / OFF: Turn off busy channel lockout	→ MENU → EXIT	P38
32	Setting Companding	MENU → SAVE3 → SQL2 → COMP OFF → MENU → Press ▲ or ▼ key / Select parameter	ON: Turn on COMP / OFF: Turn off COMP	→ MENU → EXIT	P38
33	Setting keyboardlock	MENU → SAVE3 → SAVE3 → AUTOLK OFF → MENU → Press ▲ or ▼ key / Select parameter	ON: Turn on autolock / OFF: Turn off autolock	→ MENU → EXIT	P39
34	Selecting standby display-color	MENU → SAVE3 → TXP4 → WT-LED PURPLE → MENU → Press ▲ or ▼ key / Select parameter	BLUE: Blue backlight / ORANGE: Orange backlight / PURPLE: Purple backlight / OFF: Turn off backlight	→ MENU → EXIT	P39-40
35	Selecting receive display-color	MENU → SAVE3 → SCR5 → RX-LED BLUE → MENU → Press ▲ or ▼ key / Select parameter	BLUE: Blue backlight / ORANGE: Orange backlight / PURPLE: Purple backlight / OFF: Turn off backlight	→ MENU → EXIT	P40

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#	Function	Operation sequence	Display	Parameters	Page
36	Selecting transmit display color	MENU → SAVE3 → TOT6 → TX-LED ORANGE → MENU → Press ▲ or ▼ key / Select parameter	BLUE: Blue backlight / ORANGE: Orange backlight / PURPLE: Purple backlight / OFF: Turn off backlight	→ MENU → EXIT	P40
37	Setting memory channel	MENU → SAVE3 → VOX7 → MEM-CH CH-001 → MENU → Press ▲ or ▼ key / Select parameter	128 channels	→ MENU → EXIT	P41-42
38	Delete channel	MENU → SAVE3 → W&N8 → DEL-CH CH-001 → MENU → Press ▲ or ▼ key / Select parameter	128 channels	→ MENU → EXIT	P42
39	Frequency-shift direction	MENU → SAVE3 → ABB9 → SFT-D OFF → MENU → Press ▲ or ▼ key / Select parameter	+: Positive offset / -: Negative offset / OFF: Turn off frequency-shift direction	→ MENU → EXIT	P43
40	Offset frequency	MENU → TXP4 → TDR0 → OFFSET 00.600 → MENU → Press ▲ or ▼ key / Select parameter	From 0 to 69.950MHz can be selectable	→ MENU → EXIT	P43-44
41	Setting reset	MENU → TXP4 → STEP1 → RESET VFO → MENU → Press ▲ or ▼ key / Select parameter	VFO: Menu reset / ALL: All message reset	→ MENU → EXIT	P45

- Speed search ▲UP / ▼DOWN (See page 7)
- High/Low power changeable when on transmitting (See page 16)
- 8 groups rolling voice encrypt (See page 17)
- All calls, group calls and selective calls (See page 25-30)
- Inspection, Monitor, Emergency alarm, Stun, Kill, Revive(See page 30-31)
- Whether to display when receiving the right ANI ID CODE (See page 22)

- Lowvoltage batterypack voiceprompt (See page 46)
- Setting transmit overtime prompt (See page 46)
- Adding channelscan function (See page 46)
- Setting reverse frequency function (See page 46)
- Wireclone function (See page 47)
- Programming repeater function (See page 47-48)

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How to operate

Lock menu functions

If you don't need operate menu functions frequently, you can turn off it by KG-699E programming software. The steps as follwing:

1. Set password of switching between channelmode and frequencymode.
2. Set workmode as channelmode.
3. Turn off operating menu functions. If you need to operate the menu functions, input password which you have set, and switch to frequencymode, then you can operate it.

NOTE ⚠

>> The KG-699E has dualfrequency display. In frequencymode it will display two different transmit-and receive-frequencies at the same time. In channelmode it will display the two different channels plus their parameters.

>> In frequency or channelmode you can switch to A and B segment by pressing the topkey left above the LCD.

Setting dualstandby (TDR) --- MENU O

This menu is to turn on/off dualstandby. When it is switched to ON, after 5 seconds the radio will start Standby between A and B including their set parameters, any channel or frequency has been received, then system will stay in corresponding channel or frequency,until channel or frequency signal disppear. Once signal has disappeared, system will retum to standby and start to flicker "TDR".

In standby, press [MENU] and number [TDR0] and the screen will display [TDR ON]

Press [MENU] enter, arrowhead aim at "ON" position, press (🔼) / (🔽) select ON turn on dualstandby or OFF turn off dualstandby. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

>> Standby time is controlled by setting auto-backlight.(See MENU 9)

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

In standby, press [MENU] and number [STEP1] and the screen will display [STEP 6.25K]

Press [MENU] enter, arrowhead aim at "6.25K" and press (🔼) / (🔽) to select the channel step you desired.

Press [MENU] and confirm, then press (EXIT) to return to standby.

This transceiver has the option of 5KHz, 6.25KHz, 10KHz, 12.5KHz and 25KHz steps.

NOTE ⚠

>> In frequencymode the next settings are available: channel step, outputpower, scrambler, bandwidth, receive CTCSS/DCS, transmit CTCSS/DCS, optional signal, encoding signal, signal relationship, frequencyshift direction, offsetfrequency on A/B.

>> In channelmode the next settings are not available: outputpower, receive CTCSS/DCS, transmit CTCSS/DCS, bandwidth, PTT-ID,optional signal,encoding signal, mutemode, busy channel lockout, adding scan, scrambler.
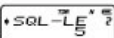
How to operate

>> In channelmode, the next settings are not available: channel step, frequencyshift direction and offsetfrequency A/B segment.

>> In channelmode scrambler setting is available on A/B.

Setting squelchlevel (SQL-LE) --- MENU 2

Select the level of squelch so that you will have no difficulty receiving the desired signal. When you set the level too high you will loose communication in a fringe area.

NOTE ⚠

>> This transceiver has steps from 0-9, which step 0 is always open squelch. From 1 to 9 gives different levels of noise reduction.

In standby, press [MENU] + number [SQL 2] and the screen will display [· SQL-LE 5]
Press [MENU] enter, arrowhead aim at "5" position by going (UP) / (DOWN) . After choose the desired squelch.
Press [MENU] and confirm, then press (EXIT) to return to standby.

Setting batterypack savemode (SAVE)--- MENU 3

In order to reduce the current consuming, this function
will be turned off circuit for a minute, then it will turn on again to check signals.
In standby, press [MENU] + number [SAVE 3] and the screen will display [· SAVE ON]
Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) select ON or OFF to switch on/off
savemode . Press [MENU] and confirm, then press (EXIT) to return to standby.

Selecting transmitpower (TXP)--- MENU 4

In frequencymode, press [MENU] + number [TXP 4] and the screen will display [· TXP HIGH]
Press [MENU] enter, arrowhead aim at "HIGH" position, press (UP) / (DOWN) and select HIGH or LOW power.
Press [MENU] and confirm, then press (EXIT) to return to standby.
HIGH: 5W(VHF) / 4W(UHF)   LOW:1W

NOTE ⚠

>> High/Low power can be changed during transmit.Press PTT key and topkey at the same time,this changes High/Low power.

>> This transceiver has 5 W and 1 W power can selectable.

How to operate

Setting 8 groups rolling voice scrambler (SCR)--- MENU 5

This function means encrypt the content of communication, startup encrypt function and make the transceiver who do not set voice encrypt can not hear clear what you are talking. Meanwhile you also can not hear clear others who do not set voice encrypt compress, what they are talking.

In standby, press [MENU] + number [scr5] and the screen will display [SCR OFF]

Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select OFF to switch off scrambler or one of the 8 different scramblers. Press [MENU] and confirm, then press (EXIT) to return to standby.

> **NOTE** ⚠️
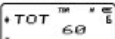> » To ensure effective communications both parties' transceiver must be set to the same voice encrypt.

Transmit over timer (TOT) ---- MENU 6

The TOT is designed to prevent your radio to transmit too long. When the transceiver is exceeding the preset time limit it will stop transmitting and give you a warning signal.

This transceiver can be set in 40 steps of 15 seconds, between 15 and 600 seconds.

In standby, press [MENU] + [tot6] and the screen will display [TOT 60]

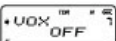17

Press [MENU] enter, arrowhead aim at "60" and press (UP) / (DOWN) to select the level you need when on transmit. Press [MENU] and confirm, then press (EXIT) to return to standby.

Setting VOX (VOX) ---- MENU 7

In standby, press [MENU] + number [vox7] and the screen will display [VOX OFF]

Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) to select VOX OFF or to switch on the 1 to 10 different sensitivity levels. Press [MENU] and confirm, then press (EXIT) to return to standby.

> **NOTE** ⚠️
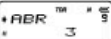> » When level is too high the VOX needs more volume to get activated.
> » When scan or radio is in using, you can not use VOX.

Setting wide or narrow bandwidth (WN) ---- MENU 8

In standby, press [MENU] + number [wn8] and the screen will display [WN NARR]

Press [MENU] enter, arrowhead aim at "NARR" position , press (UP) / (DOWN) and you can select WIDE or NARROW bandwidth. Press [MENU] and confirm, then press (EXIT) to return to standby.

Setting auto backlight (ABR) ---- MENU 9

In standby, press [MENU] +number [abr9] and the screen will display [ABR 3]

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How to operate

Press [MENU] enter, arrowhead aim at "3" position, press (UP) / (DOWN) key and select from 1-5 to turn on auto backlight or OFF when you want to switch OFF backlight. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

≫ This transceiver has 5 levels auto backlight in step of 1 second difference.

Setting receive DCS(R-DCS) ---- MENU 10

Sometimes may be you only want to hear the calling which comes from the specific individual or group, then you can ignore some(can not hear from others who using the same frequency)calling through CTCSS/DCS. Only the same signal of CTCSS/DCS, the radio will release the mutemode.
In frequencymode, press [MENU] + number [STEP1] [TDR 0] and the screen will display ┌•R-DCS ⌐OFF ⌐
Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select OFF to switch off DCS or use one of the tones between D023N-D7541. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

≫ This transceiver has 105 groups DCS tones, see appendix (1) DCS frequency sheet.
≫ And DxxxN means positive code,DxxxI means negative code. The range of positive coed is between D023N and D754N, negative code is between D023I and D754I.

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Setting Receive CTCSS(R-CTCSS) ---- MENU 11

In frequencymode, press [MENU] + number [STEP1] [STEP1] and the screen will display ┌•R-CTCSS ⌐OFF ⌐
Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select OFF to switch off CTCSS or select one of the steps from 67.0Hz~254.1Hz. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

≫ This transceiver has 50 groups CTCSS tones, see appendix (1) CTCSS frequency sheet.
≫ Meanwhile, you can edit CTCSS tones arbitrary in the range of 60.0Hz~259.9Hz through keyboard.

Setting transmit DCS(T-DCS) ---- MENU 12

In stanbdy, press [MENU] + number [STEP1] [SQL 2] and the screen will display ┌•T-DCS ⌐OFF ⌐
Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select OFF to switch off DCS or select one of the steps from D032N-D7541. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

≫ This radio has 105 groups different DCS codes, see appendix (2)DCS frequency sheet.
≫ DxxxN means positive code, DxxxI means negative code. The range of positive code is between D023N and D754N, negative code is between D023I and D754I.

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Setting transmit CTCSS (T-CTCSS) ---- MENU 13

In standby, press [MENU] + number [STEP 1] [SAVE 3] and the screen will display `T-CTCSS OFF`

Press [MENU] enter, arrowhead aim at "OFF" position, press ⊕ / ⊝ and select OFF to switch off CTCSS or use one of the tones between 67.0Hz~254.1Hz Press [MENU] and confirm, then press [EXIT] to return to standby.

NOTE ⚠

≫ This transceiver has 50 groups CTCSS tones,see appendix (1) CTCSS frequency sheet. Meanwhile, you can edit CTCSS tones arbitrary in the range of 60.0Hz~259.9Hz through keyboard.

Setting voiceguide (VOICE) ---- MENU 14

This transceiver has a selectable voiceguide in English and Chinese. It will display ENGLISH when it is English and CHINES when it is Chinese.

In standby, press [MENU] + number [STEP 1] [TXP 4] and the screen will display `VOICE CHINES`

Press [MENU] enter, arrowhead aim at "CHINES", press ⊕ / ⊝ key to either select English or Chinese or OFF to switch off the voiceguide. Press [MENU] and confirm, then press [EXIT] to return to standby.

NOTE ⚠

≫ If want to turn off all keyboard prompt must turn off MENU(15)beepprompt function and MENU(14) setting voiceguide function at the same time.

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Setting beepprompt function (BEEP) ---- MENU 15

Beepprompt is to tell you if the transceiver is operating well or has a malfunction.

We kindly advice you to switch on this function.

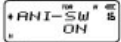This function will inform you for any possible malfunction.

In standby, press [MENU] + number [STEP 1] [SCR 5] and the screen will display `BEEP ON`

Press [MENU] enter, arrowhead aim at "ON" then press ⊕ / ⊝ to switch on the beep or OFF when you want to switch off the beep. Press [MENU] and confirm, then press [EXIT] to return to standby.

NOTE ⚠

≫ When MENU 14 is switched on, the voice guide gets priority.

Setting ANI ID CODE switch (ANI-SW) ---- MENU 16

This function means whether to display others' ANI ID CODE.

In standby, press [MENU] + number [STEP 1] [TOT 6] and the screen will display `ANI-SW ON`

Press [MENU] enter, arrowhead aim at "OFF" position, press the ⊕ / ⊝ and select ON to switch on ANI or OFF to switch off ANI. Press [MENU] and confirm, then press [EXIT] to return to standby.

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How to operate

Setting ANI ID CODE (ANI-ID) ---- MENU 17

NOTE ⚠

》 This function only can be edited via KG-699E programming software.

》 ID CODE is selectable in a range of 100-99999.

》 This transceiver has different of 3 bits,4 bits and 5 bits,so the length of ANI CODE must keep the same bits as which used in group.

Setting ringtime (RING) ---- MENU 18

When the right DTMF signal is received from the speaker, It will sound a clear ring.

In standby, press [MENU] + number [STEP1] [WBN8] and the screen will display [RING 3]

Press [MENU] enter, arrowhead aim at "3" position, press (UP) / (DOWN) to select the time of the ring between 1 and 10 or OFF to switch off the ringtime. Press [MENU] and confirm, then press (EXIT) to return to standby.

NOTE ⚠

》 This transceiver has 10 different steps of ringtime of which every step is 1 second difference.

Setting DTMF sidetone (DTMFST) ---- MENU 19

Setting DTMF sidetone gives you the opportunity to switch on or off the speaker when transmit DTMF. The transceiver has 4 different options.

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DT-ST: Switch on sidekey tone when transmitting.

ANI-ST: Switch on the ANI sidetone when transmitting.

DT+ANI: Sidekey tone and ANI sidetone are both on.

OFF: Turn off all.

In standby, Press [MENU] +number [STEP1] [ABR9] and the screen will display [DTMFST DT-ST]

Press [MENU] enter, arrowhead aim at "DT-ST" position, press (UP) / (DOWN) and select one function of DT-ST/ANI-ST/DT+ANI or OFF. Press [MENU] and confim, then press (EXIT) to return to standby.

Setting scan mode (SC-REV) ---- MENU 20

This transceiver has three kinds scanmode.

TO: After signal in channel disappeared,the transceiver will start scanning if without any operation within 5 seconds.

CO: After the transceiver stopped in a signal, it will resume scanning again when signal disappeared after 3 seconds.

SE: Scanning stops when a signal is received.

In standby, press [MENU] +number [SQL2] [TDR0] and the screen will display [SC-REV TO]

Press [MENU] enter arrowhead aim at "TO" postion, press (UP) / (DOWN) and select TO, CO or SE.

Press [MENU] and confim, then press (EXIT) to return to standby.

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How to operate

Setting DTMF signal (OPTSIG) ---- MENU 21

In frequencymode, press (MENU) +number (SQL 2) (STEP 1) and the screen will display ┌OPTSIG┐ OFF

Press (MENU) enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select ON to switch on DTMF signal or OFF to switch off DTMF signal.

Press (MENU) to confirm, press (EXIT) to return to standby.

■ All calls, group calls and selective calls

The transceiver offers transmit ANI ID CODE, edit ANI ID CODE and DTMF decoding, without by other tool user can achieve all calls, group calls and selective calls.

How to program all calls, group calls and selective calls

I. ID CODE edit   NOTE: Every transceiver in the group needs a unique ANI ID CODE.

ANI ID CODE: ANI-XXX   ANI-XXXX   ANI-XXXXX (Total has three kinds of editting methods.)

XXX: means can program 3 bits ANI ID CODE

XXXX: means can program 4 bits ANI ID CODE

XXXXX: means can program 5 bits ANI ID CODE

Professional FM Transceiver

ID	X	XX
Personal ANI ID CODE sign	Grouplist	A unique ANI ID CODE
	1 to 9 groups and 9 groups maximum.	From 0 to 99 and 100 groups maximum.
	This is how to build up ANI .	

ID	X	XXX
Personal ANI ID CODE sign	Group list	A unique ANI ID CODE
	From 0 to 9 group and 9 groups maximum	From 0 to 999 and 1000 groups maximum
	This is how to build up ANI ID CODE	

ID	X	XXXX
Personal ANI ID CODE sign	Group list	A unique ANI ID CODE
	From 0 to 9 group and 9 groups maximum	From 0 to 9999 and 10000 groups maximum
	This is how to build up ANI ID CODE	

How to operate

2. Every transceiver in the group must switch on the proper DTMF option signal. The details of setting DTMF option signal see MENU (21) Setting DTMF option signal (OPTSIG).

3. The mutemode must be set as AND. The details of setting method:See to MENU(23)Setting Mutemode(SPMUTE)

4. Press PTT transmit:To select the way of transmit DTMF code. One of the BOT/EOT/BOTH can be selected.(Automatic dialing)

5. Signal information code(S-CODE): To select the NO. of DTMF code. There are 1-15 kinds can be selected. (Automatic dialing)

6. Setting ringtime(Set when needed): The details see to the MENU(18).

7. Setting PTT-LT: According to the actual situation, the signal can delay before transmitted, the details see to the MENU (25).

8. Setting ANI ID CODE switch(ANI-SW): This function means whether to display others' ANI ID CODE (Set when needed).

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9. Setting DTMF sidetone(DTMF-ST): This means can monitor the DTMF tone(Set when needed), the details see to the MENU(19).

NOTE ⚠️

≫ Every transceiver using in the group must set the same frequency, channel and parameter.

≫ This transceiver has difference of 3, 4, 5 bits,so all the ANI ID CODE in the group have better set the same bit. When the bit of transceiver is lower than receiver's, you can use the 🔲★ to make up, then you can go on all calls, group calls or selective calls.

For examples (5 bits of ANI ID CODE):

The following chart is the transmitter's ANI ID code.

The following chart is the receiver's ANI ID code.

┌─ ANI Code ─────────┐
│   │
│   ┌──────────┐   │
│   │ 13145   │   │
│   └──────────┘   │
│   │
│ ☐ Press PTT to Send │
│ ☑ Release PTT to Send │
└────────────────────┘

┌─ ANI Code ─────────┐
│   │
│   ┌──────────┐   │
│   │ 95123   │   │
│   └──────────┘   │
│   │
│ ☐ Press PTT to Send │
│ ☑ Release PTT to Send │
└────────────────────┘

How to operate

Manually dialing:

1. Setting ANI code

2. Every transceiver in group must be set DTMF option signal. The details see to the Menu(21) Setting option signal (OPTSIG).

3. Mutemode must be set as AND. The details see to Menu (23) Setting mutemode(SPMUTE).

4. Setting ringtime (set when needed).The details see to the Menu(18).

5. Setting PTT-LT: According to the actual situation, the signal can be delayed before transmitted, the details see to the MENU (25).

6. Setting ANI ID CODE switch(ANI-SW):This function means whether to display other's ANI ID code (Set when needed).

7. Setting DTMF sidetone(DTMFST): This means can monitor the DTMF tone (Set when needed), the details see to the Menu(19).

a. How to use the function of all calls:

Press PTT key transmit, input 5 [1-8 SCAN★] directly from the keyboard.

b. How to use the function of group calls:

For example(Look at the above chart): Transmitter press the PTT key and meanwhile input the [ANI 9] + 4 [1-8 SCAN★] directly from the keyboard.

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c. How to use the function of selective calls:

Press the PTT key transmit, and input the transceiver's ANI code that you want to call.

For example(Look at the above chart): Transmitter press the PTT key and meanwhile input the 95123 directly from the keyboard.

Inspection, monitor, emergency alarm, stun, kill, revive

Inspection:

Manager can use this function when he/she want to know whether their staff are on the working; manager send the inspection signal, and the member's transceiver in the group will reply to the manager automatically(what it replied is the ANI ID CODE).

Monitor:

Manager can use this function when he/she want to know what their staff are doing at the moment. When manager transmit the monitor signal, the member's transceiver in the group will transmit automatically, then manager can hear the member's voice.

Emergency alarm:

You can use this function when on duty, and meet some emergency situation; user can transmit the emergency alarm signal which the distant emergency alarm is turned on and can display the transmitter's ANI ID CODE in order to take the corresponding actions.

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Stun:

Manager can use this function when he/she only want to let their member receive and can't transmit. Manager only need to stun the member's radio and after this over, to activate it through transmit the power on signal when needed.
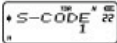
Kill:

When the radio was lost or other special circumstance happened,in order to let others disable to transmit and receive ,manager can use this function to kill the radio.

Revive:

When the manager transmit the power on signal can activate the radio which is being stuned or killed.

## Setting signal information(S-CODE) ---- MENU 22

This function means to appoint the DTMF code of setting DTMF encoding and decoding parameter of programming software.

In frequency mode, press [MENU] key+number [SQL2] [SQL2] and the screen will display [S-CODE 22] press [MENU] enter , arrowhead aim at "1" position, press (UP) / (DOWN) to select from 1-15 kinds, press [MENU] to confirm, then press (EXIT) to return to standby.

Setting mutemode (SPMUTE) ---- MENU 23

The mutemode is to turn on/off the speaker audio according to your optional signal setting. This transceiver has three kinds of modes which can be selected.

1. **QT:** When the transceiver receivers a signal and matching CTCSS tone, it will swith on the speaker, When the transceiver has not set a CTCSS tone and a signal is received, you will hear that through the loudspeaker.

2. AND: When the transceiver receives a matching QT and DTMF signal, it will switch on the speaker.

3. OR: When the transceiver receives a matching QT or AND, it will switch on the speaker.

In frequency mode, Press [MENU] +number [SQL2] [SAVE3] and the screen will display [SPMUTE 23 QT] press [MENU] enter, arrowhead aim at "QT"position, press(UP) / (DOWN) to select one of QT/AND/OR, press [MENU] to confirm, press (EXIT) to return to standby.

Setting PTT transmit (PTT-ID) ---- MENU 24

This function means that the way of selecting to transmit information code or ID code.

① **BOT:** When press the PTT key, then ID code is transmitted.

② **EOT:** When release the PTT key, then ID code is transmitted.

③ **BOTH:** When press or release the PTT key, then ID code is transmitted.

④ **OFF:** ID code can not be transmitted when turn off all.

How to operate

In frequency mode, press [MENU] +numbe [SQL 2] [TXP 4] and the screen will display [⁺PTT-ID ᵀᴰᴿ ²⁴ / OFF]
Press [MENU] key enter, arrowhead aim at "OFF" position, press [UP] / [DOWN] select one of BOT/EOT/BOTH/OFF.
Press [MENU] to confirm, press [EXIT] to return to standby.

Setting signal information code delay (PTT-LT) ---- MENU 25

This function means that to delay the ID code which will be transmitted.

①1-30: Permit transmit ANI delayed time from 1-30. unit: 100ms

②0: Do not delay to transmit ANI ID CODE.

In standby, press [MENU] +number [SQL 2] [SCR 5] and the screen will display [⁺PTT-LT ᵀᴰᴿ ²⁵ / OFF]
arrowhead aim at "5" position, press [UP] / [DOWN] to select from 1 to 30 for delay transmit ANI or OFF to
switch off ANI delay transmit. Press [MENU] to confirm, then press [EXIT] to return to standby.

> ## NOTE ⚠
>
> ≫ When alarming or the frequency has set DTMF signal, if the Menu has not be set as "0", but be set one of
> the number between 1 and 30, then the setting delayed time will be delayed to transmit signal code and
> alam code.
> ≫ If the repeater has not respond to the transmitted ID CODE of transceiver, you should adjust the parameter.

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Setting transmit segment when in dual standby (TDR-AB) ---- MENU 26

In frequency mode, press [MENU] +number [SQL 2] [TOT 6] and the screen will display [⁺TDR-AB ᵀᴰᴿ ²⁶ / A]
Press [MENU] enter, arrowhead aim at "A" position, press [UP] / [DOWN] to select A or B. Press [MENU] to confirm,
then press [EXIT] to return to standby.

> ## NOTE ⚠
>
> ≫ Setting this function, you must turn on the dual standby at first.
> ≫ When in dual standby, press PTT to transmit A segment or B segment.

Setting A segment channel display mode (MDF-A)---- MENU 27

This transceiver has three selectable display modes:channel order display, channel frequency + channel
order display, channel name + channel order display.

In standby, press [MENU] +number [SQL 2] [VOX 7] and the screen will display [⁺MDF-A ᵀᴰᴿ ²⁷ / FREQ]

1. Channel order display mode:

Press [MENU] enter, press [UP] / [DOWN] to select CH and the screen will display [⁺MDF-A ᵀᴰᴿ ²⁷ / CH]
Press [MENU] to confirm, then press [EXIT] to exit.

2. Channel frequency + Channel order display mode:

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Press [MENU] enter, press (UP) / (DOWN) to select FREQ, then the screen will display `MDF-A FREQ 27`

Press [MENU] to confirm, then press (EXIT) to exit.

3. Channel name + Channel order display mode:

Press [MENU] enter, press (UP) / (DOWN) to select NAME, then the screen will display `MDF-A NAME 27`

Press [MENU] to confirm, then press (EXIT) to exit.

Channel name display mode: To operate this function, you need to edit the channel name first or it will still display the channel order.

Setting B segment channel display mode (CB-MDF)---MENU 28

This transceiver has three kinds display mode: channel order, channel frequency+channel order and channel name+channel order.

In standby, press [MENU] + number [SQL 2] [WAN 8] and the screen will display `MDF-B FREQ 28`

1. Channel order dispay mode

Press [MENU] enter, press (UP) / (DOWN) select CH and the screen will display `MDF-B CH 28`

Press [MENU] and confirm, then press (EXIT) to return to standby.

2. Channel frequency + Channel order display mode

Press [MENU] enter, press (UP) / (DOWN) selcet FREQ and the screen will display `MDF-B FREQ 28`

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---

3. Press [MENU] and confirm, then press (EXIT) to return to standby.

Channel name + Channel order display mode

Press [MENU] enter, press (UP) / (DOWN) select NAME and the screen will display `CB-MDF NAME 28`

Press [MENU] and confirm, then press (EXIT) to return to standby.

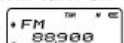To operate this function you need to edit the channel name first or it will still display the channel order.

Side key 1 editable (PF1) ---- MENU 29

①**SCAN:** Scan key   ②**RADIO:** FM radio key   ③**OFF:** Turn off the key functions

1. Selecting scan function:

In standby, press the sidekey 1 and the transceiver will switch to scanning mode (scanmode depending on setting in MENU 20). Pressing any key will stop scanning.

2. Selecting radio function:

In standby, press sidekey 1and the transceiver will turn on the radio. The radio is for the FM band from 87.5-108MHz and the screen will display `FM 88900`

a. When in radio mode, press (UP) / (DOWN) , number key or channel knob to turn the station.

b. Press [SQL 2] key can check the working frequency and channel, the screen will display `FM 88900` after 5 seconds. Transceiver works normally when operation.

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c. Press PTT key, side key 2 and top key will switch on the corresponding functions.

» When you want to exit radio press sidekey 2 again.

» When using the radio you must have the standard antenna connected to the transceiver.

NOTE ⚠

» When you are listening to the radio the channel/frequency you operate on will still function. At the moment your transceiver receives a signal the FM radio will stop and you will listen to your operating channel/frequency, 5 seconds after the signal disappeared the transceiver will switch back to radio mode.

» If you want to exit the FM radio please press sidekey 1.

In standby, press [MENU] + number [SQL2] [ABC9] and the screen will display [PF1 RADIO]

Press [MENU] enter, arrowhead aim at "RADIO" position, press (UP) / (DOWN) and select one of the functions of SCAN/RADIO/OFF. Press [MENU] and confirm, then press (EXIT) to return to standby.

Setting distant urgency alarm function on topkey (PF2) ---- MENU 30

The topkey offers two kinds of functions:

ALARM: Startup distant urgency alarm

OFF: Turn off this function

In standby, press [MENU] + number [SAVE3] [TDR0] and the screen will display [PF2 ALARM]

Press [MENU] enter, arrowhead aim at "ALARM", press (UP) / (DOWN) and select one of the functions of ALARM/OFF. Press [MENU] and confirm, then press (EXIT) to return to standby.

When you have selected ALARM, in standby press topkey and from your speaker an alarm will sound and the red and green lamp will flicker at the same time. Press the topkey again to exit.

Busy channel lockout (BCL) ---- MENU 31

Turn on this function is to prevent interfere others who is on communicating. If the selected channel are using by others, this time press PTT key, the transceiver can not transmit.

In frequency mode, press [MENU] + number [SAVE3] [STEP1] and the screen will display [BCL OFF]

Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) and select between ON/OFF.

Press [MENU] and confirm, then press (EXIT) to return to standby.

Companding (COMP) ---- MENU 32

COMP: Use voice compress technology to reduce the noise when on talking, make the voice clear.

In standby, press [MENU] + number [SAVE3] [SQL2] and the screen will display [COMP OFF]

Press [MENU] enter, arrowhead aim at "OFF" position, press (UP) / (DOWN) to select ON or OFF.

Press [MENU] to confim, then press (EXIT) to return to standby.

Setting keyboardlock (AUTOLK) ---- MENU 33

The transceiver has two options, autolock and manuallock.

AUTOLK: When you set autolock the keyboard will be locked within 15 seconds.

To release keyboard press [◦#] for more than 2 seconds.

OFF: This will switch off autolock.

> **NOTE** ⚠
>
> ≫ MANUALLOCK: In standby press [◦#] for more than 2 seconds and this will lock keyboard, to switch off press [◦#] again for more than 2 seconds.

In standby, press [MENU] + number [SAVE3] [SAVE3] and the screen will display [AUTOLK OFF 33]

Press [MENU] enter, arrowhead aim at "OFF" position, press (⬆) / (DOWN) and select ON for autolock or OFF to switch off autolock. Press [MENU] and confirm, then press (EXIT) to return to standby.

Seetting standby display color (WT-LED) ---- MENU 34

The transceiver has four colors avaiable:

BLUE/CRANGE/PURPLE/OFF

In standby, press [MENU] +number [SAVE3] [TXP4] and the screen will display [WT-LED PURPLE 34]

Press [MENU] enter, arrowhead aim at "PURPLE" position, press (⬆) / (DOWN) and select the desired color of BLUE/ORANGE/PURPLE/OFF. press [MENU] and confirm, then press (EXIT) to return to standby.

Selecting receive display color (RX-LED) ---- MENU 35

The transceiver has four colors available:

BLUE/ORANGE/PURPLE/OFF

In standby, press [MENU] +number [SAVE3] [SCR5] and the screen will display [RX-LED BLUE 35]

Press [MENU] enter, arrowhead aim at "BLUE" position, press (⬆) / (DOWN) and select the desired color of BLUE/ORANGE/PURPLE/OFF. Press [MENU] and confirm, then press (EXIT) to return to standby.

Selecting transmit displaycolor (TX-LED) ---- MENU 36

The transceiver has four colors available:
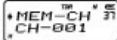
BLUE/ORANGE/PURPLE/OFF

In standby, press [MENU] + number [SAVE3] [TOT6] and the screen will display [TX-LED ORANGE 36]

Press [MENU] enter, arrowhead aim at "ORANGE" position, press (⬆) / (DOWN) and select the desired color of BLUE/ORANGE/PURPLE/OFF. Press [MENU] and confirm, then press (EXIT) to return to standby.

How to operate

Setting memory channel=Setting co-channel and dis-channel (MEM-CH) ---- MENU 37

When the transceiver works in frequency mode and standby mode, you can input any frequency and each parameter what you want to store.

Press [MENU] + number [SAVE 3] [VOX 7] and the screen will display `[MEM-CH 37 / CH-001]`

Press [MENU] enter, press (UP) / (DOWN) to select channel, press [MENU] to store and you hear an announcement if it is stored. Press (EXIT) to exit, at this moment the channel is co-channel memory.

When you need to store dis-channel, repeat the above procedure, when this has happened an announcement will inform you.

Example:

You want 450.025MHz for receive and 460.025MHz for transmit and stored in CH-20, then act as follows:

1. When the transceiver works in frequency mode, input [TXP 4] [SCR 5] [TDR 0] [TDR 0] [SQL 2] [SCR 5], [MENU] + [SAVE 3] [VOX 7] + [MENU], then press [SQL 2] [TDR 0] or (UP) / (DOWN) key select CH-20, press [MENU] key to confirm, voiceprompt will tell you it is stored, press (EXIT) to exit;

2. Then input [TXP 4] [TOT 6] [TDR 0] [TDR 0] [SQL 2] [SCR 5] + [MENU] + [SAVE 3] + [VOX 7] + [MENU] + [MENU] and voiceprompt will tell you it is stored + press (EXIT) to exit.

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3. The dis-channel is stored.

NOTE ⚠

>> If want to set the functions of CTCSS, DCS, DTMF signal in the stored frequency, please setting before receiving storage. Then it can store together with frequency in channel.

>> The transmitting storage only stored transmit frequency and CTCSS/DCS, if you want to store other menu functions, please store with the receiving storage.

>> If you want to store by manual,in frequency mode,the channel should be vacant,then you can go on the operation of storing receiving and transmitting or you can only go on the operation of storing transmitting. If the channel is not vacant and you want to go on the operation of storing receiving and transmitting, you should delete channel.

>> Besides manualstore, this transceiver also can via software to set each parameter.

Delete channel (DEL-CH) ---- MENU 38

In standby, press [MENU] + number [SAVE 3] [WAN 8] and the screen will display `[DEL-CH 38 / CH-001]`

Press [MENU] enter, press (UP) / (DOWN) to select the channel you want to delete, press [MENU] to confirm.

The selected channel and message are deleted, press (EXIT) to return to standby.

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Setting frequencyshift direction (SFT-D) ---- MENU 39

Frequencyshift means that:

1. The transmit frequency is higher than receive frequency. This is called positive offset (+)

2. The transmit frequency is lower than receive frequency. This is called negative offset.(-)

3. Turn off frequencyshift.

In standby, press [MENU] + number [SAVE3] [AB9] and the screen will display `SFT-D OFF 39`

Press [MENU] enter, press (↑) / (↓) and select +/-/OFF. Press [MENU] and confirm, then press (EXIT) to return to standby.

> ### NOTE ⚠
>
> ≫ It can not transmit if the frequency shift is exceeding the permitted range. In this condition, to adjust the receiving frequency or frequency shift and make the transmit frequency in the permitted range.

Setting offsetfrequency (OFF-SET) ---- MENU 40

Offsetfrequency is the difference between the transmit and receive frequency. The transceiver offset range can be from 0 to 69.950MHz.

In standby press [MENU] + number [TXP4] [TDR0] and the screen will display `OFFSET 00.600 40`

Press [MENU] enter, press (↑) / (↓) to select offsetfrequency. Press [MENU] and confirm, then press (EXIT) to return to standby.
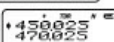
Follow the next steps:

1. Set working frequency.

2. Set frequencyshift direction and offsetfrequency.

Example: In frequencymode, the transceiver will works in receive frequency 450.025MHz and transmit frequency will be 460.025MHz.
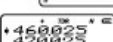
In frequencymode, order input [TXP4] [SCR5] [TDR0] [TDR0] [SQL2] [SCR5] , press [MENU] + [SAVE3] + [AB9] + [MENU] and select positive offset (+); press [MENU] + (EXIT) , then press [MENU] + [TXP4] + [TDR0] + [MENU] + (↑) /(↓) and select 10.000+ [MENU] + (EXIT) and the frequencyshift direction plus offsetfrequency are complete.

The screen will display `450025 470025`

When press PTT key the screen will display `460025 470025`

When you release PTT the screen will display `450025 470025`

Now the receive frequency is `450025 470025`

The transmit frequency is `460025 470025`

Setting reset ---- MENU 41

The transceiver has a menu which resets VFO and ALL messages.

When you use reset VFO all parameters of menu will return to factory default.

When you use reset ALL all menu and channel parameters will return to factory default.

I. MENU reset (VFO)

In standby, press [MENU] + number [TXP4] [STEP1] and the screen will display [RESET VFO]

Press [MENU] enter, press [UP] / [DOWN] select VFO, press [MENU] key and the screen will display [RESET SOURE?]

Press [MENU] again and the screen will display [RESET WAIT]

When the reset has worked well the transceiver will auto power off and auto switch on again.

2. All message reset (ALL):

In standby, press [MENU] + number [TXP4] [STEP1] the screen will display [RESET ALL]

Press [MENU] enter, press [UP] / [DOWN] and select ALL, press [MENU] and the screen will display [RESET SOURE?]

Press [MENU] again and the screen will display [RESET WAIT]

When reset has worked well, the transceiver will auto power off and auto switch on again.

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Professional FM Transceiver

Setting reverse frequency function

When using reverse frequency function, the transceiver transmit-and receivefreuency will interchange and the setting of CTCSS and/or DCS encode and decode also will interchange.

■ **Operating reverse frequency function:**

In standby, press [T-R SCAN★] will turn on reverse frequency function, press [T-R SCAN★] again and this will turn off reverse frequency function.

Lowvoltage batterypack voiceprompt

When the batterypack has lowvoltage, the transceiver will sound "low batterypack" voiceprompt .

Setting transmit overtime prompt

When transmitter works longer than preset time, the transceiver will announce "transmit overtime" by voice and stop transmitting. If you want to transmit again, please press **PTT**.

(Setting transmit overtime prompt please see MENU 6)

Adding channelscan

NOTE ⚠

>> Channel scan only according scan list which had been added.
>> Edit method: Strictly via KG-699E programming software.

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How to operate

Wireclone function

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

Programming repeater function

Most repeaters use standard or different splits and/or matching CTCSS/DCS or DTMF signals.

When you need to join a repeater, you need to set different parameters on receive and transmit.

Example: The repeater transmit frequency is 450.025MHz, CTCSS value is 67Hz, the receive frequency is 460.025MHz, CTCSS value is 254.1Hz.

When the transceiver needs to join the repeater, you need to follow the following steps:

1. Set receive frequency, CTCSS value and store this in appointed channel, example channel 20. The transceiver in frequencymode, setting receive to 460.025MHz, CTCSS value 254.1 Hz and store to channel 20. The operation is as follows:

In frequencymode, order input [TXP4] + [TOT6] + [TDR0] + [TDR0] + [SQL2] + [SCR5] , [MENU] + [STEP1] + [STEP1] + [MENU] , press [UP] / [DOWN] and select CTCSS value 254.1 + [MENU] ; [SAVE3] + [VOX7] + [MENU] ; [SQL2] + [TDR0] + [MENU] and voice prompt receive store, press [EXIT] key.

2. Setting transmit frequency, CTCSS value and store in appointed channel 20. The transceiver in frequencymode, setting transmit frequency as 450.025MHz, setting CTCSS value as 67Hz and store in channel 20.

In frequencymode, order input [TXP4] + [SCR5] + [TDR0] + [TDR0] + [SQL2] + [SCR5] , [MENU] + [STEP1] + [SAVE3] + [MENU] , press [UP] / [DOWN] select CTCSS value 67+ [MENU] ; + [SAVE3] + [VOX7] + [MENU] ; [SQL2] + [TDR0] + [MENU] . Voiceprompt transmit store, press [EXIT] key.

3. Press [MENU] and turn on the power at the same time, the transceiver works in channel mode at this time, press [UP] / [DOWN] select channel 20, the transceiver can join the repeater.

How to operate

How to use the intelligent charger

1. When the poweradapter is connected the intelligentcharger, the poweradapter should be plugged into the matchingvoltage. The intelligentcharger will flicker once, then go into the standby mode which means that you can charge the batterypack; When you plug in the batterypack, the intelligentcharger will switch to red LED which means that it has being charged.

2. When the green light flickers, the batterypack is fully charged.

3. After you plug in the batterypack which the voltage is lower than 6V (it is lower than 6V if you can not power on the transceiver), the red LED flickers which means that the batterypack is being trickle charged by intelligentcharger and this will last about 10 minutes. When the light turns red, it will go into the normal charge.

4. After you plug in the batterypack which the voltage is higher than 6V(it is higher than 6 V if you can power on the transceiver), the red LED flickers, at this time, please confirm whether the batterypack is plugged in right with intelligentcharger.

Trouble shooting

Professional FM Transceiver

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

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

Problem	Possible Cause	Possible Solution
Transceiver will not switch on.	1. The batterypack is not installed properly. 2. The batterpack maybe exhausted. 3. The batterypack is getting too old.	1. Re-install the batterypack. 2. Charge the batterypack. 3. Change the batterypack.
The receiverlight is on and there is no sound from the speaker.	1. The powerswitch is not adjusted well. 2. Confirm if your CTCSS/DCS is the same as others. 3. Confirm if you use the right mutemode.	1. Turn on the volumcontrol again. 2. Reset the CTCSS/DCS. 3. Reset the mutemode.
There is no reception	1. Check if you have installed the right antenna. 2. The signal you are receiving is very weak.	1. Install the supplied antenna. 2. Move the radio around till you receive the desired signal or press 🔑 to reset and press ⚙ again to go to the right channel.

Trouble shooting

Problem	Possible Cause	Possible Solution
Keyboard and PTT switch do not work.	*I.* The keyboard is locked. *2.* RADIO "mode" is switched on, see displayFM.	*I.* Set keyboard to free. *2.* Please exit RADIO mode.
The receivelight is on and you can not transmit.	You have set transceiver to busychannel lockout.	Switch off busychannel lockout.
You can not store certain settings.	In channel mode you cannot set parameters.	Set transceiver to frequency mode.
Autotransmit when you are in standby.	The VOX level is set too low.	Switch off VOX or set VOX to a HIGHER level.
During communication when you receive other group(s) or receive distorted signal.	The frequency and the CTCSS/DCS in the group are the same as other groups.	Change the setting of CTCSS/DCS,frequency or channel in the group.

Technology parameter

Wouxun
Professional FM Transceiver

Appendix 1

CTCSS

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

Technology parameter

Appendix 2

DCS

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

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

Technology specification

Frequency range	VHF: 66-88 MHz	
	VHF: 136-174 MHz	VHF: 245-246 MHz
	UHF: 300-350 MHz	UHF: 350-390 MHz
	UHF: 400-470.9875 MHz	UHF: 450-520 MHz
Memory channels	128 channels	
Voltage	7.4V DC	
Working temperature	-30℃(-22F) to + 60℃(140F)	
Channels	Co-channel or Dis-channel simplex	
Power output	VHF: 5W / UHF:4W	
Mode	F3E(FM)	
Maximum deviation	≤ ±5KHz	
Adjacent channel power	< -60dB	
Stability	±5 ppm	
Sensitivity	< 0.2 μV	
Audio output power	≥500mW	
Weight	250g	
Size	62 X 105 X 39 (mm) 2.44x4.13x1.54(inch)	

NOTE ⚠

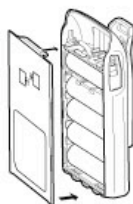≫ Specifications are subject to change without notice.

Optional accessories

Professional FM Transceiver

Dual slot charger   "AA" batterypack   Eliminator   Programming cable   Car charger

Wireclonecable   Headset   Speaker/MIC   Switching adapter   1700mAh Li-ion batterypack   Programming Software

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