

Thanks for buying a  **WOUXUN** transceiver.

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

Warning 

- » Please do not use the transceiver when you are in explosive areas (such as gas, dust, smoke, etc.)
- » Please turn off the transceiver while your car is being refueled or parked at a gas station.

User Safety, Training, and General Information

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

Compliance with RF Energy Exposure Standards

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

NOTE

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

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

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

Operational Instructions and Training Guidelines

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

Transmit and Receive

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

Hand-held radio operation

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

pointing away from the 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

- Only use the **Wouxun** -approved, supplied antenna or a **Wouxun** - approved replacement antenna.
- Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC regulations.
- Only use the **Wouxun** - approved, supplied batteries or a **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 for a list of 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 understands the hazards common to the operation of any transceiver. Turn off your transceiver while refueling , parked at gasoline service stations, or when in explosive areas (gases, dust, fumes, etc.)
- » If you require this equipment to be modified, please contact **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 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 to 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

The user of this equipment must be licensed through the Federal Communications Commission. 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 should 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 while parked at a gas station.

Do not modify or adjust this radio without permission.

Do not expose the radio to direct sunlight over a long period of time, or place it close to a heating source.

Do not place the radio in excessively dusty, humid areas, or 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,  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.

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

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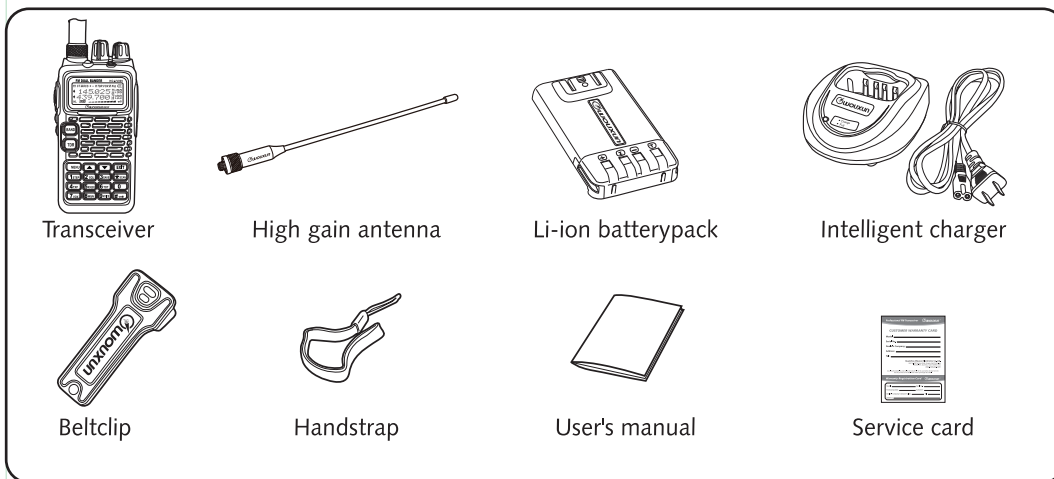
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Unpacking and Checking the Equipment

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

Supplied Accessories



Description of Functions

1. Dual Band, Dual Frequency, Dual Display and Dual Standby
2. Frequency Range (may vary for different countries or areas):

| | |
|------------------------------|------------------------------|
| 136-174MHz&400-520MHz(RX/TX) | 136-174MHz&400-480MHz(RX/TX) |
| 136-174MHz&420-520MHz(RX/TX) | 136-174MHz&420-470MHz(RX/TX) |
| 136-174MHz&245-250MHz(RX/TX) | 136-174MHz&230-260MHz(RX/TX) |
| 136-174MHz&225-226MHz(RX/TX) | 144-146MHz&430-440MHz(RX/TX) |

FM:76-108MHz
3. Output:5W VHF/4W/UHF
4. 199 memory channel
5. DTMF Encoding and Decoding
6. DTMF Transmitting Time Controllable
7. ANI(caller ID)
8. VOX
9. All Calls, Group Calls and Selective Calls
10. 1750Hz Burst Tone
11. Distant Urgency Alarm
12. Digital FM Radio
13. Calling Ring
14. 105 groups DCS/50 groups CTCSS
15. Voice Guide(English/Chinese)
16. Wide/Narrow Bandwidth selectable(25KHz/12.5KHz)

02

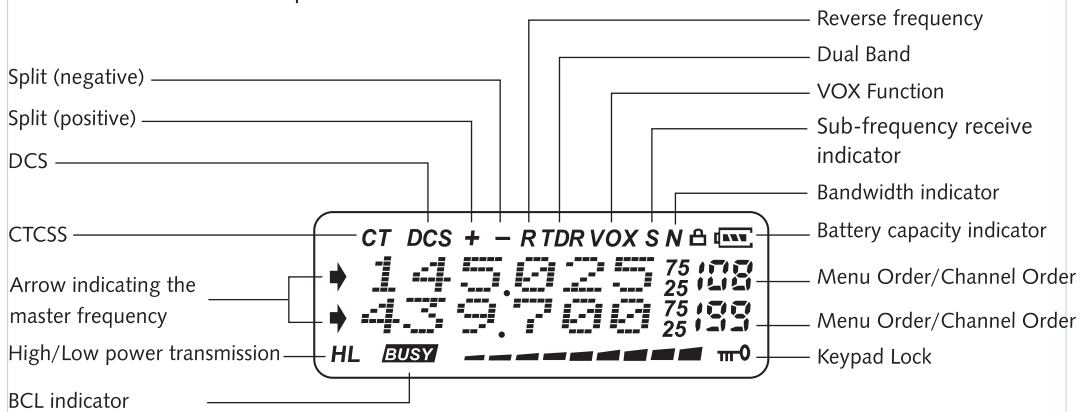
17. Auto Backlight
18. Super-bright Flashlight
19. Channel Number, Channel Frequency, Multi-editable Channel Name
20. Reverse Frequency
21. Multi Scanning
22. Priority Scanning
23. Frequency Step Selectable(5/6.25/10/12.5/25/50/100KHz)
24. High/Low Power Selectable(VHF:5W/1W, UHF:4W/1W)
25. High Battery Capacity
26. Intelligent Charging
27. Setting Frequency Shift
28. Busy Channel Lockout
29. Multi Display Modes when Power On(Full Screen/Batt-V/Others)
30. Low Voltage Battery Prompt
31. Transmitting Overtime Prompt
32. Keyboard Lock(Auto/Manual)
33. Adding Channel to Scan
34. High/Low Power Switchable when Transmitting
35. PC Programmable
36. Wire Cloning
37. Menu/Channel Reset
38. IP55 Waterproof

03

Getting Started

LCD Display

There are various indicators displayed on the screen while powered on. Please refer the below table to learn what each indicator represents.



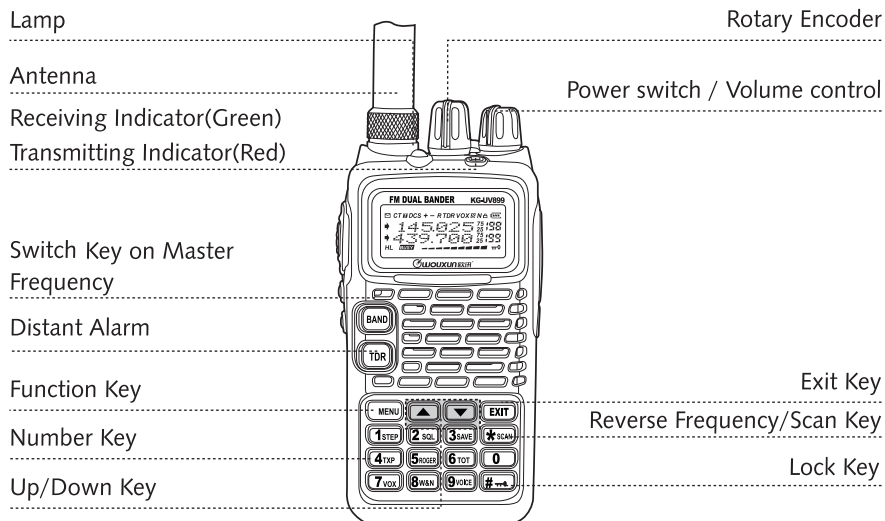
Note:

- [Full Battery Icon] Full Battery Capacity Indicator
- [Exhausted Battery Icon] Exhausted Battery Capacity Indicator
- [Low Battery Icon] Low Battery Capacity Indicator
- [Signal Meter Icon] Receiving Signal Meter

04

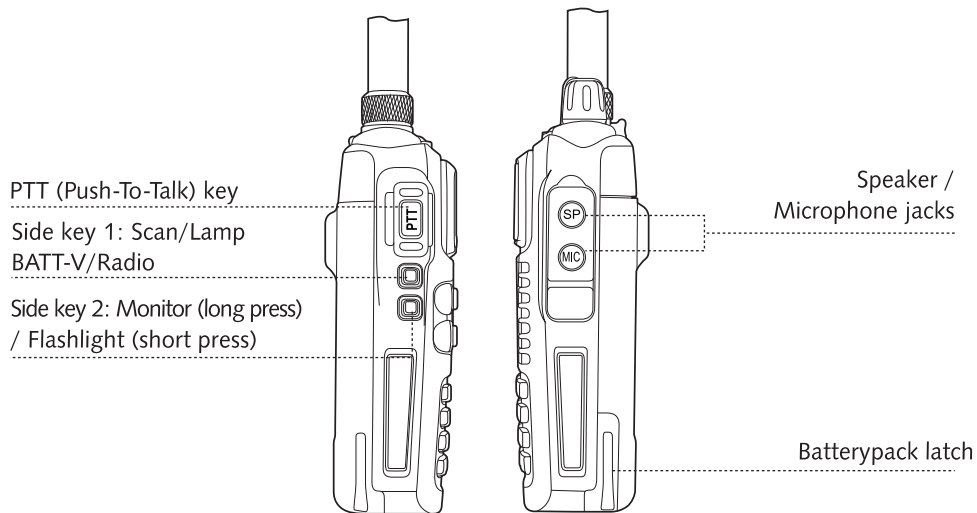
Transceiver Description

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Getting Started



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Getting started

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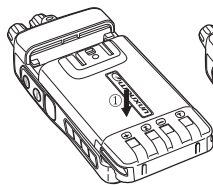
■ Installing/Removing battery pack

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

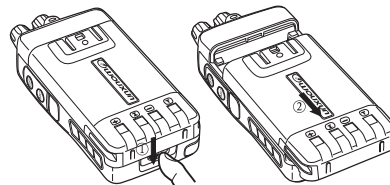
NOTE

- » Do not shortcircuit the terminals or put the battery pack into fire.
- » Do not try to remove the case from the battery pack.

1. Please aim the battery pack at the back of the transceiver, and then push up and press down the battery pack to lock the release latch. (PIC1)
2. If you want to remove the battery pack, push down the release latch and remove up the battery pack from the transceiver. (PIC2)



PIC1



PIC2

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Getting Started

■ Quick Search

When setting function parameters, press the ▲ or ▼ key one time to scroll through parameters. Press and hold the ▲ or ▼ key to scroll quickly.

■ 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 | ▲ | ▼ | EXIT | A | B | C | D |
| 1 STEP | 2 SQL | 3 SAVE | * SCAN | 1 | 2 | 3 | * |
| 4 TXP | 5 ROGER | 6 TOT | 0 | 4 | 5 | 6 | 0 |
| 7 VOX | 8 W&M | 9 VOICE | # → | 7 | 8 | 9 | # |

■ A/B Switch

Press BAND to select the master frequency (without the arrowhead mark) is the master frequency, while the other frequency (without the arrowhead mark) is the sub frequency. The transceiver can transmit and receive on the master frequency, but ONLY receives on the sub frequency. While receiving on the sub frequency, the "S" indicator appears on the display.

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Getting started

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■ TDR Key (PF2)

1. Short press TDR to switch between Single Band and Dual Band.
2. Long press TDR to activate ALARM function.
3. Press MENU + TDR to switch the working mode (VFO and Channel Mode).
4. When pressing PTT to transmit, press TDR at the same time to switch between High and Low Power casually.

■ # → Key

Long press # → key for 2 seconds to lock or unlock the keyboard.

■ 1750Hz Burst Tone

This transceiver supports a 1750Hz Burst Tone function, required by some repeaters.

Usage:

In standby mode, simultaneously press both PTT and PF1 side keys to transmit the 1750Hz burst tone. The burst tone will continue to be transmitted until the keys are released.

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Shortcut Sheet

| Function order | Function name | Enter function set | Screen display | Select parameter | Selectable parameter explanation | Confirm | Return to standby | See page |
|----------------|---------------------|--------------------|----------------|---|--|---------|-------------------|----------|
| 1. | Step Frequency | MENU → 1STEP | | MENU → Press ▲ or ▼ key Select parameter | 7 kinds of frequency steps 5K/ 6.25K/10K/12.5K/25K/50K/100K | MENU → | EXIT | P16 |
| 2. | Squelch Level | MENU → 2SQL | | MENU → Press ▲ or ▼ key Select parameter | Squelch level from 0 to 9 | MENU → | EXIT | P17 |
| 3. | Power Saver Mode | MENU → 3SAVE | | MENU → Press ▲ or ▼ key Select parameter | ON: Turn on save function OFF: Turn off save function | MENU → | EXIT | P17-18 |
| 4. | Transmitting Power | MENU → 4TXP | | MENU → Press ▲ or ▼ key Select parameter | H: High power (VHF 5W/UHF 4W) L: Low power (1W) | MENU → | EXIT | P18 |
| 5. | Roger Beep | MENU → 5ROGER | | MENU → Press ▲ or ▼ key Select parameter | OFF: No voice prompt BOT: Beginning of transmission prompt EOT: End of transmission prompt BOTH: Both will prompt | MENU → | EXIT | P19 |
| 6. | Time-out Timer | MENU → 6TOT | | MENU → Press ▲ or ▼ key Select parameter | TOT has 40 levels in steps of 15 seconds. OFF: Turn off TOT | MENU → | EXIT | P19 |
| 7. | VOX | MENU → 7VOX | | MENU → Press ▲ or ▼ key Select parameter | VOX has levels from 1 to 10 OFF: Turn off VOX transmission | MENU → | EXIT | P20 |
| 8. | Bandwidth Selection | MENU → 8W&N | | MENU → Press ▲ or ▼ key Select parameter | WIDE: 25KHz NARR: 12.5KHz | MENU → | EXIT | P20 |

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Shortcut Sheet

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| | | | | | | | | |
|-----|-----------------------------|-----------------------|--|---|--|--------|------|--------|
| 9. | Voice Guide | MENU → 9VOICE | | MENU → Press ▲ or ▼ key Select parameter | CHINES: Chinese voice Guide ENGLISH: English voice Guide OFF: Turn off voice Guide | MENU → | EXIT | P21 |
| 10. | Transmitting Overtime Alarm | MENU → 1STEP → 0 | | MENU → Press ▲ or ▼ key Select parameter | 1 to 10 levels with 1 second each OFF: turn off TOA | MENU → | EXIT | P21 |
| 11. | Beep Prompt Function | MENU → 1STEP → 1STEP | | MENU → Press ▲ or ▼ key Select parameter | ON: Turn on beep prompt function OFF: Turn off beep prompt function | MENU → | EXIT | P22 |
| 12. | Power-on Message | MENU → 1STEP → 2SQL | | MENU → Press ▲ or ▼ key Select parameter | OFF: Full screen display BATT: Battery voltage display MSG: WELCOME | MENU → | EXIT | P22 |
| 13. | Busy Channel Lockout | MENU → 1STEP → 3SAVE | | MENU → Press ▲ or ▼ key Select parameter | ON: Turn on BCL OFF: Turn off BCL | MENU → | EXIT | P23 |
| 14. | Keypad Lock | MENU → 1STEP → 4TXP | | MENU → Press ▲ or ▼ key Select parameter | ON: Turn on Autolock OFF: Turn off Autolock | MENU → | EXIT | P23-24 |
| 15. | Receiving CTCSS | MENU → 1STEP → 5ROGER | | MENU → Press ▲ or ▼ key Select parameter | 50 groups CTCSS (67.0Hz-254.1Hz) OFF: Turn off CTCSS | MENU → | EXIT | P24 |
| 16. | Transmitting CTCSS | MENU → 1STEP → 6TOT | | MENU → Press ▲ or ▼ key Select parameter | 50 groups CTCSS (67.0Hz-254.1Hz) OFF: Turn off CTCSS | MENU → | EXIT | P25 |
| 17. | Receiving DCS | MENU → 1STEP → 7VOX | | MENU → Press ▲ or ▼ key Select parameter | 105 groups DCS (D023N-D754N) OFF: Turn off DCS | MENU → | EXIT | P25 |

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Shortcut Sheet

| | | | | | | |
|-------------------------------|---------------------------|--|--------|--------------------------------------|---|--------------------|
| 18. Transmitting DCS | MENU → 1 STEP → 8 W&N → | | MENU → | Press ▲ or ▼ key Select parameter | 105 groups DCS (D023N-D754N) OFF: Turn off DCS | MENU → EXIT P26 |
| 19. Scan Mode | MENU → 1 STEP → 9 VOICE → | | MENU → | Press ▲ or ▼ key Select parameter | 3 kinds of Scan modes TO: Time scanning mode CO: Carrier mode 1 scan SE: Carrier mode 2 scan | MENU → EXIT P26 |
| 20. Side Key 1 Setting | MENU → 2 SQL → 0 → | | MENU → | Press ▲ or ▼ key Select parameter | SCAN: Activate scan LAMP: Turn on Lamp BATT-V: Battery Status RADIO: Turn on FM radio OFF: Inactivate | MENU → EXIT P27-29 |
| 21. Working Mode | MENU → 2 SQL → 1 STEP → | | MENU → | Press ▲ or ▼ key Select parameter | This transceiver has two working modes available: 1. Frequency mode (FREQ) 2. Channel mode Three kinds of channel mode available: ① Channel (CH) ② Frequency + Channel number (CH FREQ) ③ Channel name (NAME) | MENU → EXIT P30-31 |
| 22. Auto Backlight | MENU → 2 SQL → 2 SQL → | | MENU → | Press ▲ or ▼ key Select parameter | ON: Turn on backlight OFF: Turn off backlight | MENU → EXIT P31-32 |
| 23. Offset Frequency | MENU → 2 SQL → 3 SAVE → | | MENU → | Press ▲ or ▼ key Select parameter | 0-69.950MHz available | MENU → EXIT P32-33 |
| 24. Frequency Shift Direction | MENU → 2 SQL → 4 TXP → | | MENU → | Press ▲ or ▼ key Select parameter | + Positive direction - Negative direction OFF: Turn off frequency shift direction | MENU → EXIT P33-34 |
| 25. Editing channel name | MENU → 2 SQL → 5 ROGER → | | MENU → | Press ▲ or ▼ key Select parameter | The channel name is made up of (A to Z)26 letters, (0-9)10 numbers, " " or "+" or "-". The length is within six bits. | MENU → EXIT P34-35 |

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Shortcut Sheet

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| | | | | | | |
|-------------------------------------|---------------------------|--|--------|--------------------------------------|--|--------------------|
| 26. Memory channel | MENU → 2 SQL → 6 TOT → | | MENU → | Press ▲ or ▼ key Select parameter | 199 memory channel | MENU → EXIT P35-36 |
| 27. Deleting channel | MENU → 2 SQL → 7 VOX → | | MENU → | Press ▲ or ▼ key Select parameter | 199 memory channel | MENU → EXIT P37 |
| 28. ANI ID CODE editing | MENU → 2 SQL → 8 W&N → | | MENU → | Press ▲ or ▼ key Select parameter | Personal ANI ID CODE can be selectable from 000 to 99999 | MENU → EXIT P37 |
| 29. Delay Time for Transmitting ANI | MENU → 2 SQL → 9 VOICE → | | MENU → | Press ▲ or ▼ key Select parameter | ON: 1-30 levels selectable for the delay time. Unit: 100ms OFF: Manual transmit | MENU → EXIT P38 |
| 30. DTMF Signaling | MENU → 3 SAVE → 0 → | | MENU → | Press ▲ or ▼ key Select parameter | ON: Turn on DTMF signal OFF: Turn off DTMF signal | MENU → EXIT P38-39 |
| 31. Mute Mode | MENU → 3 SAVE → 1 STEP → | | MENU → | Press ▲ or ▼ key Select parameter | 3 kinds of mutemode QT/QT+DT/QT&DT | MENU → EXIT P39 |
| 32. Ring Time | MENU → 3 SAVE → 2 SQL → | | MENU → | Press ▲ or ▼ key Select parameter | 10 levels, 1 second different 0 menus turn off ringtime prompt | MENU → EXIT P40 |
| 33. DTMF Sidetone | MENU → 3 SAVE → 3 SAVE → | | MENU → | Press ▲ or ▼ key Select parameter | DF-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 P40-41 |
| 34. Transmitting Mode for ANI | MENU → 3 SAVE → 4 TXP → | | MENU → | Press ▲ or ▼ key Select parameter | 3 kinds of transmitting modes: BOT/ EOT/ BOTH. | MENU → EXIT P41 |
| 35. Reset | MENU → 3 SAVE → 5 ROGER → | | MENU → | Press ▲ or ▼ key Select parameter | VFO: Menu reset ALL: All message reset | MENU → EXIT P44-45 |

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Shortcut Sheet

- Quick Search ▲ / ▼ (See page 08)
- High/Low power setting (See page 18)
- All Calls, Group Calls, Selective Calls (See page 42-44)
- Setting reverse frequency  (See page 46)
- Setting transmitting overtime prompt (See page 48)
- Wire-clone function (See page 47)
- Programming guide (See page 52)
- 1750Hz Burst Tone (See page 09)
- Priority scan function (See page 46)
- Low voltage prompt (See page 47)
- Adding scanning channel function (See page 47)
- Working with repeaters (See page 48-51)

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How to operate

 Professional FM Transceiver


Menu Lock Function

The menu may be locked via the programming software:

1. Set channel mode as the working mode.
2. Turn off the operating menu function in the channel mode (untick 'Menu Available' in Channel Mode column).

If you want to unlock the  key, you can switch to Frequency Mode, or put a tick before 'Menu Available' in Channel Mode column of the matching software.

NOTE

- » In dual standby mode, the screen shows "TDR". The frequency with the arrowhead mark is the master frequency while the one without the arrowhead mark is the sub frequency. When the sub frequency is receiving, the "S" indicator is shown on the display. In dual standby mode, the transceiver ONLY transmits the master frequency and receives on the sub frequency.
- » Master Frequency Setting
In dual standby mode, press  to select the master frequency.
- » This transceiver is a dual bander, with dual frequency and dual display functions. In frequency mode, it can display two different receiving/transmitting frequencies at the same time. In channel mode, it can also display the channel frequency and related parameters in both channels at the same time.

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How to operate

NOTE

- » In **frequency/channel mode**, the transceiver may be switched between band A and band B by pressing the **BAND** key. ALL operations affect the band shown by the A/B indicator.
- » In **frequency mode**, frequency step, transmitting power, squelch level, bandwidth, CTCSS, DCS, offset frequency, frequency shift direction and channel display modes may be set independently for bands A and B.
- » In **channel mode**, frequency step, transmitting power, CTCSS, DCS, bandwidth, offset frequency, and frequency shift direction functions may not be independently set for bands A and B.

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

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

Press **MENU** to enter, it shows '12.50K', press **▲** / **▼** to select the desired step, then press **MENU** to confirm, finally press **EXIT** to return to standby.

The frequency steps selectable for this transceiver are as follows:

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

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

Squelch level is used to control the level of a received signal required to hear audio output from the transceiver. When squelch level is set too high, weaker signals may be missed. When squelch level is set too low, needless signals may be heard.

NOTE

- » The squelch level for this transceiver has 0-9 levels. 0 turns off the squelch function. Higher squelch levels require stronger received signals to activate the receiver.

In standby, press **MENU** + **2 SQL**, the screen displays 

Press **MENU** to enter, it shows '5', press **▲** / **▼** to select the desired squelch level, then press **MENU** to confirm, finally press **EXIT** to return to standby.

Power Saver Mode (SAVE) ----- MENU 3

When the power saver function is ON, the receiver circuit will be deactivated/reactivated cyclically, in order to reduce battery consumption.

How to operate

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

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

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

Transmitting Power (TXP) ----- MENU 4

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

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

NOTE

» This transceiver has HIGH and LOW transmitting power settings:

VHF: HIGH: 5W LOW: 1W

UHF: HIGH: 4W LOW: 1W

» The transmitter may be quickly (and temporarily) toggled between HIGH/LOW output power. While in transmitting mode, press **TDR** to toggle the output power. When transmitting stops, the transceiver will revert to the original output power.

Roger Beep (ROGER) ----- MENU 5

This function selects the prompt mode when beginning/ ending transmitting as follows:

OFF: The transceiver will not prompt when pressing or releasing PTT.

BOT: The transceiver will prompt when pressing PTT (beginning of transmission).

EOT: The transceiver will prompt when releasing PTT (end of transmission).

BOTH: The transceiver will prompt when pressing and releasing PTT (beginning and end of transmission).

In standby, press **MENU** + **5**ROGER, the screen displays 

Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to select OFF/BOT/EOT/BOTH, then press **MENU** to confirm, finally press **EXIT** to return to standby.

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

This function is to prevent the transceiver from transmitting for too long. When the transceiver exceeds the preset time limit, it will stop transmitting with an overtime alarm.

The Time-out Timer may be set from 15 to 600 seconds, in 15 second intervals.

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

Press **MENU** to enter, it shows '60', Press **▲** / **▼** to select the desired Time-out Timer value, then press **MENU** to confirm, finally press **EXIT** to return to standby.

How to operate

VOX (VOX) ----- MENU 7

This transceiver will switch to transmitting mode when a voice signal is detected.

The transmitting operation will be somewhat delayed, and the voice signal may be not transmitted at the beginning, since there is some time before the VOX circuit detects the voice signal.

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

Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to turn OFF VOX function or select VOX level (1-10), then press **MENU** to confirm, finally press **EXIT** to return to standby.

NOTE

» A higher VOX level requires a higher voice level for transmission.

» In SCAN and RADIO modes, the VOX function is not available, but the VOX indicator will still appear on the display.

Bandwidth Selection (WN) ----- MENU 8

In standby, press **MENU** + **8 WBN**, the screen displays 

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

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Voice Guide (VOICE) ----- MENU 9

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

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

NOTE

» Please turn off MENU 9 and MENU 11 at the same time to turn off all the voice prompts for this transceiver.

Transmitting Overtime Alarm (TOA) ----- MENU 10

The TOA may be set from 1 to 10 seconds. The TOA alarm will sound a beep and the LCD will continue to flash. For example, a TOA setting of 5 will sound an alarm 5 seconds before the end of TOT preset time.

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

Press **MENU** to enter, it shows '5', press **▲** / **▼** to select OFF/1~10 Level, then press **MENU** to confirm, press finally **EXIT** to return to standby.

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How to operate

Beep Prompt Function (Beep) ----- MENU 11

The beep prompt is used to indicate transceiver operating confirmation, error status, or faulty conditions. It is recommended that this function remain ON in order to detect error conditions.

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

Press **MENU** to enter, it shows 'ON', press **▲** / **▼** to select turn ON/OFF the beep prompting function, then press **MENU** to confirm, press finally **EXIT** to return to standby.

NOTE

» When MENU 9 VOICE function and MENU 11 BEEP function are both on at the same time, the VOICE function is prioritized.

Power-on Message (PONMSG) ----- MENU 12

This transceiver has 3 display modes for the power on message:

OFF: display the full screen

BATT-V: display the current battery voltage

MSG: display 'WELCOME'

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

Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to select OFF/BATT-V/MSG, then press **MENU** to confirm, finally press **EXIT** to return to standby.

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Busy Channel Lockout (BCL) ----- MENU 13

This function is to prevent interference from other communicating channels. When the selected channel is occupied by others, press PTT and there will be an alarm prompt for BCL. When PTT is released, the alarm prompt stops the transceiver reverts to receiving mode.

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

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

Keypad Lock (AUTOLK) ----- MENU 14

The keypad may be set to auto (AUTOLK) or manual locking.

ON: When AUTOLK is on, and there are no operations for 15 seconds, the keypad will be locked automatically. Press **#...** for more than 2 seconds to unlock the keypad.

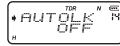
OFF: When AUTOLK is off, the keypad may be locked manually.

NOTE

» To manually lock the keypad while in standby mode, press **#...** for more than two seconds. Repeat this operation to unlock the keypad.

How to operate

In standby, press **MENU** + **1STEP 4TXP** , the screen displays

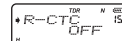


Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to select ON/OFF this function, then press **MENU** to confirm, finally press **EXIT** to return to standby.

Receiving CTCSS (R-CTCSS) ----- MENU 15

CTCSS/DCS can be used to receive specified individual or group calls, and avoid needless reception from others on the same frequency. Only upon receiving the same CTCSS/DCS signals, will the transceiver release the squelch.

In frequency mode, press **MENU** + **1STEP 5ROGR** , the screen displays



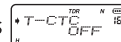
Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to turn OFF this function or select 67.0Hz to 254.1Hz CTCSS code, then press **MENU** to confirm, finally press **EXIT** to return to standby.

NOTE

» This transceiver has 50 CTCSS group settings. See Appendix (1): CTCSS frequency sheet.

Transmitting CTCSS (T-CTCSS) ----- MENU 16

In standby, press **MENU** + **1STEP 6TOT** , the screen displays



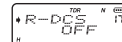
Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to turn OFF this function or select 67.0Hz to 254.1Hz CTCSS code, then press **MENU** to confirm, finally press **EXIT** to return to standby.

NOTE

» This transceiver has 50 CTCSS group settings. see appendix (1) CTCSS frequency sheet.

Receiving DCS (R-DCS) ----- MENU 17

In frequency mode, press **MENU** + **1STEP 7VOX** , the screen displays



Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to turn OFF this function or select D023N to D754N DCS code, then press **MENU** to confirm, finally press **EXIT** to return to standby.

NOTE

» This transceiver has 105 DCS group settings, see appendix (2) DCS frequency sheet.

» In DCS selections, DXXXN (from D023N to D754N) means POSITIVE code, while DXXXI (from D023I to D754I) means NEGATIVE code.

How to operate

Transmitting DCS (T-DCS) ----- MENU 18

In standby mode, press **MENU** + **1STEP** **8W&N** , the screen displays . Press **MENU** to enter, it shows 'OFF', press **▲** / **▼** to turn OFF this function or select D023N to D754I DCS code, then press **MENU** to confirm, finally press **EXIT** to return to standby.

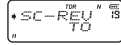
NOTE

- » This transceiver has 105 DCS group settings, see appendix (2) DCS frequency sheet.
- » In DCS selections, DXXXN (from D023N to D754N) means POSITIVE code, while DXXXI (from D023I to D754I) means NEGATIVE code.

Scanning Mode (SC-REV) ----- MENU 19

This transceiver has three scan modes:

- TO:** The transceiver continues scanning if there are no operations 5 seconds after receiving signals.
- CO:** The transceiver pauses scanning when receiving signals, and continues scanning 3 seconds after the signal disappears.
- SE:** The transceiver stops scanning when receiving signals.

In standby mode, press **MENU** + **1STEP** **9VOICE** , the screen displays . Press **MENU** to enter, it shows 'TO', press **▲** / **▼** to select TO/CO/SE scan mode, then press **MENU** to confirm, finally press **EXIT** to return to standby.

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SCAN / LAMP / BATT-V / FM Radio Function on Side Key 1 ----- MENU 20

There are four functions which may be assigned to side key 1 of this transceiver:

SCAN: Scan function **LAMP:** Lamp function **BATT-V:** Battery Status
RADIO: FM radio function **OFF:** Disable this side key


1. SCAN function:

In standby mode, press Side key 1 enter to activate scanning (scan mode can be set through MENU 19 -Scan Mode Setting), while press any keys to stop scanning in scan mode.

In standby mode, press **MENU** + **2SQL** **0** , the screen displays . Press **MENU** to enter, press **▲** / **▼** to select SCAN, then press **MENU** to confirm, finally press **EXIT** to return to standby.

2. LAMP function:


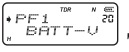
In standby mode, press Side key 1 to turn on the Lamp, and press this key again to turn it off.

In standby mode, press **MENU** + **2SQL** **0** , the screen displays . Press **MENU** to enter, press **▲** / **▼** to select LAMP, then press **MENU** to confirm, finally press **EXIT** to return to standby.

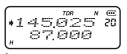
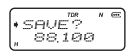
3. BATT-V:

How to operate

In standby, press PF1 to activate BATT-V function to check the battery voltage status of the transceiver. Press any key to exit from this function.

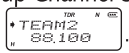
In standby, press **MENU** + **2 SQL** **0**, then screen displays , then press **MENU** to enter, press **▲** / **▼** to choose BATT-V, the screen displays , press **MENU** again to confirm, press **▲** / **▼** to choose Band A or Band B, then press **MENU** to confirm, finally press **EXIT** to return to standby.

4. RADIO function:

- **Turning on the FM radio:** In standby mode, press Side key 1 to turn on. The screen displays , then the indicator keeps flashing, which indicates the transceiver is automatically tuning radio stations. Once the transceiver gets tuned, it stops at this radio station and starts the listening.
Tuning FM radio stations: In radio mode, press ***SCAN**, the radio begins tuning the stations automatically and the green light flashes until the search is complete. You can press **▲** / **▼** to manually tune radio stations.
- **Storing a radio station:** After detecting a radio station, press **MENU**, the screen displays , and then select one of the number keys between **1STEP** and **9VOICE**, the detected radio station will be stored into the transceiver for future use.

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The transceiver has two groups of storage available. The default group is the first storage area.

E.g. If you want to store 88.1MHz into the 1st group Channel 8, tune the desired frequency (88.1MHz) while in radio mode, press **MENU** + **8W&N** to store it into storage area 1, channel 8. If you want to store this frequency into the 2nd group Channel 8. In radio mode, when tuning the desired radio station, press **#->** then the screen will display . At this time, press **MENU** + **8W&N** to store this station into the 2nd group Channel 8.

In radio mode, press 1 to 9 key to select the stored station to listen to, press the **#->** key to switch between the first and second storage areas.

- **Exiting from radio mode:** Press Side key 1 again to exit from radio mode.

NOTE

» When in FM radio mode, the current frequency or channel is in standby. When a received signal is detected, the transceiver will automatically switch to receiving/transmitting mode. Five seconds after the signal disappears, the transceiver will switch back to radio mode.

» In FM radio mode, press **EXIT** to revert to the current standby frequency, and press PTT to transmit. Five seconds after transmission, the transceiver will revert back to radio mode.

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How to operate

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

This transceiver has two options for the working mode:

1. Frequency mode (FREQ)
2. Channel mode

There are three channel display selections in channel mode as follows:

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

NOTE

- » It is possible to switch between frequency and channel modes manually or via the programming software. If desired, a password may be set for mode switching.
- » The password for mode switching may only be set via the KG-UV899 programming software.
- » The password consists of 6 digits, while "000000" means no password is needed for mode switching.

Frequency mode (FREQ) and Channel mode switchable

① Without password input

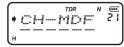
In standby, press **MENU** + **2 SQL** **1STEP**, then press **▲** / **▼** to choose working mode and finally press **MENU** to confirm.

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② With password input

Please set the password for mode switching via the KG-UVD1P programming software. A valid password consists of 6 digits from 0 to 9 (except "000000").

In standby, press **MENU** + **2 SQL** **1STEP**, then press **▲** / **▼** to choose one of FREQ/NAME/CH/CHFREQ.

Press **MENU** to confirm, then the screen will display the password input . Please input the preset password through the keypad, then the transceiver will switch to the selected mode.

NOTE

- » At least one channel is stored ahead into the transceiver, so that the above settings for the mode switch is workable.
- Quickly switch between frequency and channel modes (CH).
- In standby, press **MENU** + **TDR** key to switch the mode. Without password input, you can switch it directly, otherwise you need to input the valid password.

Auto Backlight (ABR) ----- MENU 22

In standby, press **MENU** + **2 SQL** **2 SQL**, the screen displays .

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

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NOTE

» When the ABR function is set ON, the backlight will not be activated in transmitting/receiving mode or when pressing side key 2. Otherwise, operating on the keypad or the side key 1 will activate the backlight automatically.

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

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

In standby mode, press **MENU** + **2 SQL** **3 SAVE** , the screen displays 

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

In order to transmit and receive in different frequencies, it is necessary to set the offset frequency and the frequency shift direction in the frequency mode.

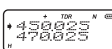

Please follow these steps:

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

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E.g.: In frequency mode, the transceiver needs to work on receiving frequency 450.025MHz and transmitting frequency 460.025MHz.

In Frequency mode, input **4 TXP** **5 ROGER** **0** **0** **2 SQL** **5 ROGER** then press **MENU** + **2 SQL** + **4 TXP** + **MENU** to select positive direction (+), press **MENU** + **EXIT**, then press **MENU** + **2 SQL** + **3 SAVE** + **MENU** + **▲** / **▼** to choose 10.000+ **MENU** + **EXIT** , so the frequency shift direction and offset frequency are set.

The screen displays  , press PTT to transmit and the screen displays  .

Release PTT and the screen displays  This indicates that the receiving frequency is

 while the transmitting frequency is  .

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

There are three selections for the frequency shift direction settings:

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

In standby mode, press **MENU** + **2 SQL** **4 TXP** , the screen displays 

How to operate

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

Editing Channel Name (CHNAME) ----- MENU 25

When editing channel names:

1. Valid characters are A-Z and 0-9
2. Maximum name length is 6 characters
3. When manually editing, "-" means that this character is blank.

Editing methods:

1. Via the KG-UV899 programming software.
2. Directly through the keypad.

When editing the channel name:

1. store at least one channel into the transceiver.
2. place into channel mode.
3. Enter **MENU** + **2 SQL** **5 ROGER** CHNAME, press **#...** key to switch the character status(Capital, Lowercase and Special Symbols) while press **▲** / **▼** key to selected expected character. Press ***SCAN** key to select the editing location.

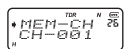
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Editing steps:

1. Store the desired channel into the transceiver. Please refer to the Memory Channel (MEM-CH) MENU26.
2. If the transceiver works in channel mode with the CH or CHFREQ, please go to MENU 21(CH-MDF) to select NAME mode.
3. Select the desired channel, press **MENU** + **2 SQL** + **5 ROGER** + **MENU**, the screen displays "-----". Press **▲** to select characters and press **▼**, then press **▲** again to select another digits. After finishing editing the desired name, press **MENU** to confirm, and press **EXIT** to exit. The screen displays the edited channel name and the channel number on the upper right corner.

Memory Channel (MEM-CH) ----- MENU 26

In frequency mode and in standby, it is possible to store the desired frequencies and relevant parameters into the specified channel.

Input the desired frequency, then press **MENU** + **2 SQL** **6 TOT**, the screen displays . Press **MENU** to enter, press **▲** / **▼** to select channel, then press **MENU** to store, with the voice prompt "receiving memory". Press **EXIT** to exit, this memory channel with same TX and RX frequency. If you need to store the different TX and RX frequencies in the same channel, repeat the above operation on another

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frequency, then there is another voice prompt "transmitting memory".

E.g.: Store receiving frequency 450.025MHz and transmitting frequency 460.025MHz into CH-20 l.

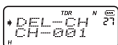
1. In frequency mode, input **4**_{TXP} **5**_{ROGER} **0** **0** **2**_{SQ}, **5**_{ROGER} + **MENU** + **2**_{SQ} **6**_{TOT} + **MENU**, then press **2**_{SQ} **0** or **▲** / **▼** to select CH-20, press **MENU** to confirm, voice prompt for receiving memory, then press **EXIT**.
2. Input **4**_{TXP} **6**_{TOT} **0** **0** **2**_{SQ} **5**_{ROGER} + **MENU** + **2**_{SQ} **6**_{TOT} + **MENU** + **MENU**, voice prompt for transmitting memory, then press **EXIT**.
3. The different TX(450.025MHz) and RX (460.025MHz) frequencies were stored to CH-20.

NOTE

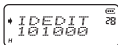
- » If required, the CTCSS/DCS tone DTMF signaling, Power and other parameter should be set prior to the receiving memory, otherwise, it can only store the transmitting frequency.
- » If the desired channel has already been programmed (The programmed channels show as CH-001 while free unused channels appear as 001), please delete the channel before the transmitting and receiving memory. Only when the desired channel is empty, can both the transmitting and receiving memory be stored, otherwise only the transmitting memory can be manually programmed.
- » It is also possible to set channel memories using the programming software.

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Deleting a Channel (DEL-CH) ----- MENU 27

In standby mode, press **MENU** + **2**_{SQ} **7**_{VOX}, the screen displays . Press **MENU** to enter, and press **▲** / **▼** to select the desired channel, then press **MENU** to confirm, After the channel is deleted successfully, press **EXIT** to return to standby.

Editing ANI ID CODE (IDEDIT)----MENU 28

In frequency mode, press **MENU** and number keys **2**_{SQ} **8**_{W&N}, the screen will display . Press **MENU** enter, input your desired ANI ID Code directly. And then press **MENU** to confirm, press **EXIT** to return to standby.

NOTE

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

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How to operate

Delay Time for Transmitting ANI(PTTDLY)----MENU29

Setting ANI ID code means the ANI ID code transmitting status when pressing PTT key once to communicate.

① **1-30**: Preset ANI transmitting delay time from 1 to 30. Unit:100ms

② **OFF**: Transmitting ANI ID code manually

In standby mode, press **MENU** and number keys **2 SQL 9 VOICE**, the screen will display .

Press **MENU** enter, and the screen will display . Press **▲** / **▼** to select PTTDLY function.

Press **MENU** enter, and then press **▲** / **▼** to select the allowed delay transmitting time for ANI ID code from 1 to 30. Or select OFF to transmit ANI ID code manually. Press **MENU** to confirm, then press **EXIT** to return to standby.

DTMF Signaling(OPTSIG)----MENU30

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 **MENU** and number keys **3 SAVE 0**, the screen will display .

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

Mute Mode(SPMUTE)----MENU31

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

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 **MENU** and number keys **3 SAVE 1 STEP**, the screen will display .

Press **MENU** enter, and then press **▲** / **▼** to select one of QT or QT+DT or QT X DT.

Then press **MENU** to confirm, and press **EXIT** to return to standby.

How to operate

Ring Time(ART)-----MENU32

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

In standby mode, press **MENU** and number keys **3SAVE 2SQL**, the screen will display .

Press **MENU** enter, and then press **▲** / **▼** to select ringtime from 0 to 10.

Then press **MENU** to confirm, and press **EXIT** to return to standby.

DTMF Sidetone(DTMFST)-----MENU33

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:

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

In standby mode, press **MENU** and number keys **3SAVE 3SAVE**, and the screen will display .

Press **MENU** enter, and then press **▲** / **▼** to select one function of DT-ST/ANI-ST/DT+ANI/OFF.

Then press **MENU** to confirm, and press **EXIT** to return to standby.

Transmitting Mode for ANI(PTT-ID)-----MENU34

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.

- ① **BOT**: Press PTT key to transmit ANI ID CODE.
- ② **EOT**: Release PTT key to transmit ANI ID CODE.
- ③ **BOTH**: Both press PTT and release PTT key to transmit ANI ID CODE.

In standby mode, press **MENU** and number keys **3SAVE 4TXP**, and the screen will display .

Press **MENU** enter, and then press **▲** / **▼** to select one function of BOT/EOT/BOTH.

Then press **MENU** to confirm, and press **EXIT** to return to standby.

How to operate

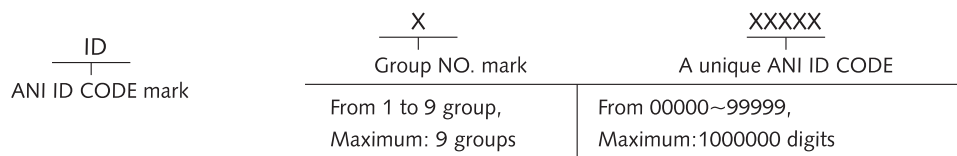
All calls, group calls and selective calls

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:

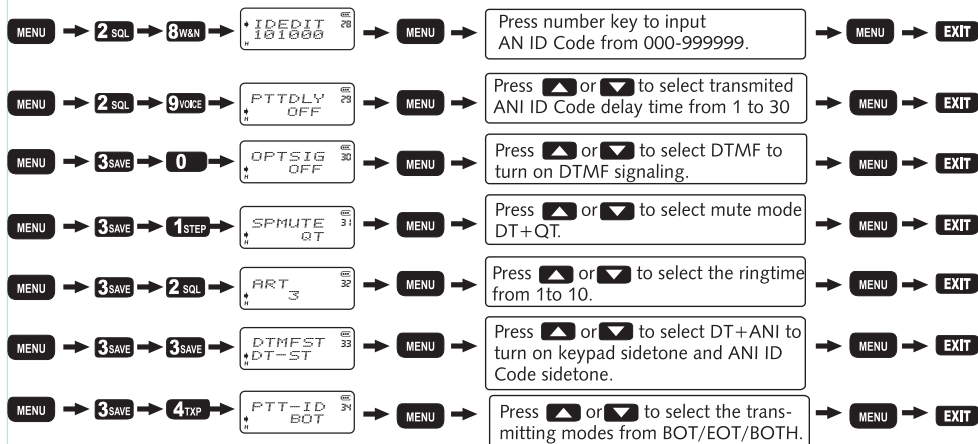
- 1. ANI ID CODE edit** **Note:** Every transceiver in the same group should be edited a unique ANI ID code.

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



This is how to set ANI ID CODE.

The steps of setting ANI ID CODE:



NOTE

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

How to operate

a. How to use all calls function:

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

b. How to use group calls function:

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

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(RESET)-----MENU35

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 **MENU** + number keys **3SAVE 5ROGER**, the screen will display **RESET VFO**.

Press **MENU** to enter, and press **▲/▼** to select VFO, then press **MENU**, the screen displays **RESET SURE?**.

Press **MENU** again to confirm, and the screen will display **RESET WAIT**.

After this operation, the transceiver will be restarted automatically.

2. All reset (ALL):

In standby, press **MENU** + number keys **3SAVE 5ROGER** and the screen will display **RESET VFO**.

Press **MENU** enter, press **▲/▼** to select ALL. Press **MENU** and the screen will display **RESET SURE?**.

Press **MENU** again and the screen will display **RESET WAIT**. The transceiver will restart after this operation.

How to operate

Priority Scan

Priority scan is used to monitor a preferred channel and secondary channels at the same time.

E.g.: Scan six channels: Set CH1, CH2, CH3, CH4 and CH5 as the common scanned channels, and CH6 as the priority scanned channel. then the scanning order is as following:

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


When the transceiver detects a signal on the priority channel while scanning, it will recall its frequency.

Please program the priority channel via the KG-IV899 programming software.

Reverse Frequency

When using the reverse frequency function, the transmitting and receiving frequencies of this transceiver will be interchanged, together with all settings for CTCSS/DCS and DTMF.

How to set the reverse frequency:

In standby mode, press  to activate this function. Press  again to switch it off.

Low Voltage Prompt

When the battery pack is in low voltage, there will be a voice prompt for the lower voltage. At this time, the backlight flashes once every five seconds and the speaker emits a "click" sound to indicate charging is necessary.

Adding Scanning Channels

NOTE

» The transceiver ONLY scans the channels listed in the SCAN ADD of the KG-UV899 programming software.

Wire-clone Function

1. Install batteries into the source and target radios and connect the wire-clone cable between them.
2. Turn ON the target radio.
3. Press the MONI key of the source radio while powering it ON.
4. The RED light of source radio flashes, indicating data is starting copying.
5. The GREEN light of target radio flashes, indicating data is being received.
6. When copying is complete, the red & green lights will stop flashing and the radio will return to standby mode.

How to operate

Transmitting Overtime Alarm

When the transmission time exceeds the preset time, an alarm will sound to indicate overtime transmitting, and transmitting will be paused. Press PTT to resume transmitting. (Please see MENU 6: Time-out timer TOT).

Working with Repeaters

This series of transceiver will operate with repeaters, both in frequency mode and Channel mode, which is programmable through the keypad and via the programming software.

Please refer to the following steps to manually program the channels to work with the Repeater.

- a. Set the transceiver to the Frequency/VFO mode. (If the radio is in channel mode, please press **MENU** + **TDR** key to switch frequency 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 parameters required for this frequency, like MENU 15-18 CTCSS/DCS, MENU 23 Offset frequency, MENU 24 Shift frequency direction and others.
- d. Store this frequency and parameters into the specified channel by MENU 26.

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e. After setting the Offset frequency and the Shift frequency direction of receiving memory, you don't need to memorize the Transmit frequency.

The radio is ready to operate with a repeater.

Switch the working mode to Channel mode, recall the memorized channel. The transceiver can operate with the Repeater.

For example, the Receive frequency range of the 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 follow these steps:

- a. Power on the transceiver, and set it to work in Frequency mode.
- b. Press **MENU** + **1STEP** + **MENU** to set the Frequency step. Press **▲** / **▼** key to select the desired frequency step, and then press **MENU** to confirm, finally press **EXIT** to return to standby.
- c. Input the frequency 447850 through the keyboard, and program followings:
Press **MENU** + **0** + **4TYP** + **MENU** to set the Transmitting Power. Press **▲** / **▼** key to select the desired power, and then press **MENU** to confirm, finally press **EXIT** to return to standby. (Please refer to MENU 4 on Page 18)

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How to operate

Press **MENU** + **1STEP** + **6TOT** + **MENU** to set the T-CTCSS. Press **▲** / **▼** key to select the desired CTCSS code 103.5Hz, and then press **MENU** to confirm, finally press **EXIT** to return to standby. (Please refer to MENU 16 on Page 25)

Press **MENU** + **2SQL** + **3SAVE** + **MENU** to set the Offset frequency. Press **▲** / **▼** key to select the desired offset frequency 5.00MHz, and then press **MENU** to confirm, finally press **EXIT** to return to standby. (Please refer to MENU 23 on Page 32-33)

Press **MENU** + **2SQL** + **4TXP** + **MENU** to set the Shift frequency direction. Press **▲** / **▼** key to select the desired direction "-", and then press **MENU** to confirm, finally press **EXIT** to return to standby. (Please refer to MENU 24 on Page 33-34)

Press **MENU** + **2SQL** + **6TOT** + **MENU** to Memory channel. Press **▲** / **▼** key, rotate the channel encoder, or directly input 2+0 through the keyboard to select the specified channel CH-20, and then press **MENU** to confirm, there is voice prompt "Receiving memory"(it prompts when the Voice guide is ON.). Finally press **EXIT** to return to standby. (Please refer to MENU 26 on Page 35-36)
After above, the settings for memory channel to work with the repeater is done.

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If necessary for the channel name editing, please press **MENU** + **TDR** to switch the working mode to Channel mode. Select the specified channel CH-20, and then press **MENU** + **2SQL** + **1STEP** + **MENU** to change the mode to NAME. Press **▲** / **▼** to select NAME, and then press **MENU** to confirm, then finally press **EXIT** to return to standby. Then press **MENU** + **2SQL** + **5ROGER** + **MENU** to edit the channel name. Press **▲** / **▼** to edit the characters of the name, and then press **MENU** to confirm, then finally press **EXIT** to return to standby. (Please refer to MENU 21 on Page 30-31 and MENU 25 on Page 34-35)

How to Use the Intelligent Charger

1. Insert the AC plug into the power grid socket (AC:90-240V), the indicator on the charger flashes, then the charger is in the charging standby mode.
2. Insert the battery into the charger, the RED LED is on, which means charging is in progress. When the RED LED turns to GREEN, charging is complete.

NOTE

» When an exhausted battery pack is inserted into the charger, it will be pre-charged with trickle power (the RED LED flashes for 10-20 minutes). When the LED turns solid RED, the charger enters normal charging mode. When the GREEN LED turns on, charging is complete.

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How to operate

Programming Guide

- a. Download, unzip and install the USB driver according to your operating system.
- b. Restart your computer, and it should show the driver is installed successfully.
- c. Download and unzip the matching programming software.
- d. Connect the transceiver.
- e. Power on the transceiver and open the software.
- f. Read from the radio to check the connection.
- g. Set parameters and functions as desired.
- h. Write to the radio.

NOTE

- » 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.
- » Please note that once the first three steps are completed, the com port will be selected automatically when you open the software. However, according to different computer settings, the com port may need to be reset.
- » Please determine the port assignment from the device manager of the computer and select the correct communication port.
- » If the connection is still not OK, please try another cable or another transceiver on another computer to double check. Please refer to the detailed manual or the video guide for KG-UV899 programming on the wouxun website: <http://www.wouxun.com>

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Troubleshooting


Professional FM Transceiver

Before the transceiver is regarded as being faulty, please double check according to the following chart. If the problems still exists, please reset it and try again or seek assistance from an experienced technician or contact your seller.

| Problem | Solution |
|---|--|
| The transceiver can not be powered on. | <ol style="list-style-type: none">1. The battery may be exhausted - please install a new battery or re-charge it.2. The battery was not installed correctly, please re-install. |
| The battery life is too short. | <ol style="list-style-type: none">1. The battery life is over, please install a new battery.2. The battery is not fully charged. |
| The receiving light keeps flashing, but there is no sound coming out. | <ol style="list-style-type: none">1. Make sure the volume is turned up.2. Make sure the CTCSS/DCS settings are the same as the transmitting transceiver. |
| It seems the keyboard does not work. | <ol style="list-style-type: none">1. Make sure the keypad is not locked.2. Make sure the keys are not stuck. |

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Troubleshooting

| Problem | Solution |
|---|---|
| In standby, the transceiver will transmit automatically, even when the PTT key is not pressed | If the VOX functions is ON, ensure the VOX level is not set too high. |
| Some functions can not be stored normally. | Please confirm that the transceiver is working in channel mode, since some functions are ONLY set in frequency mode via programming software. |
| There are disturbing signals or noise (from other groups) in the channel. | Please change the CTCSS/DCS frequencies set in your group. |

Technical Parameters

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 |

Technical Parameters

Appendix 2

DCS

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

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Technical Specifications

wouxun
Professional FM Transceiver

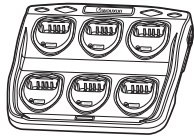
| | |
|---|---|
| Frequency Range (may vary for different countries or areas): | VHF:136-174MHz/245-250MHz/230-260MHz UHF:400-470MHz/400-480MHz/420-520MHz/400-520MHz |
| Memory Channels | 199 channels |
| Operating Voltage | 7.4V |
| Operating Temperature | -30°C to + 60°C |
| Working Mode | Co-channel or Dis-channel simplex |
| Output Power | VHF: 5W / UHF:4W |
| Modulation | F3E(FM) |
| Max. Frequency Deviation | ≤ ±5KHz |
| Spurious Radiation | < -60dB |
| Frequency Stability | ± 5 ppm |
| Receive Sensitivity | < 0.2 μV |
| Audio Output power | ≥ 500mW |
| Waterproof | IP55 |
| Dimensions | 115x54.5x34(mm) |
| Weight | 218g |

NOTE

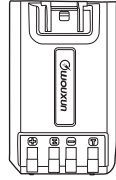
» Specifications are subject to change without prior notice.

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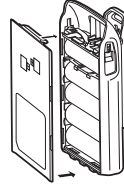
Optional Accessories



Six-way charger



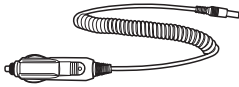
1700mAh Li-ion battery pack



"AA" battery case



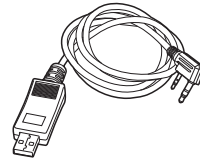
Eliminator



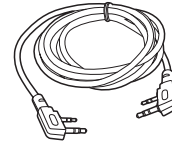
Car charger



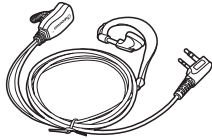
Programming software



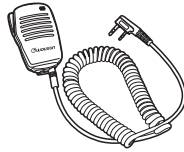
USB programming cable



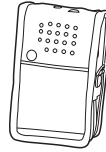
Wireclone cable



Headset



Speaker/Mic



Leather case




(SL16) (BNC)
Antenna adapter

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Announcement

 **Wouxun**
Professional FM Transceiver

 endeavors to achieve the accuracy and completeness of this manual, but it may contain omissions or printing errors. All the above is subject to change without prior notice.

English Version: KG-UV899-0225-V1

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DECLARATION OF CONFORMITY

We, Quanzhou Wouxun Electronics Co., Ltd.
No.928 Nanhuan Road, Jiangnan High Technology Industry Park, Quanzhou,
Fujian 362000, China,

declare that our product:

Product Description: Two-way Radio
Brand: WOUXUN
Model: KG-UV899

is in compliance with the essential requirements and other relevant provisions
of the R&TTE directive 1999/5/EC and carries the CE mark accordingly.
Supplementary information:

The product complies with the requirements of:

Low Voltage Directive 2006/95/EC
-EN 60950-1: 2006+A11:2009+A1:2010

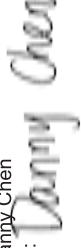
Efficient use of frequency spectrum
-ETSI EN 301783-1 V1.1.1(2008-09)
-ETSI EN 301783-2 V1.1.1 (2008-09)

EMC Directive 2004/108/EC
-ETSI EN 301 489-1 V1.8.1 (2008-04)
-ETSI EN 301 489-15 V1.2.1 (2002-08)

Date: June 16, 2010

Place: Quanzhou, Fujian, China

Name: Danny Chen

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