Thanks for buying the wouxun transceiver.

This transceiver offers latest design, multi-functionality, stable performance and easy operation. We believe you will be pleased with the high quality and powerful functions.

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR wouxun PORTABLE TWO-WAY RADIO. This manual is suitable ONLY: KG-958.

PRECAUTIONS

This transceiver is with excellent design and advanced technology.

Please follow the below suggestions and warning to assist you to carry out the responsibilities on warranty terms, and learn the safety before using the transceiver.

1. Please keep the transceiver and accessories out of the reach of children.
2. Do not disassemble the transceiver to avoid the possibility of damaging by a non-professional.
3. Please ONLY use WOUXUN supplied batterypack and charger to avoid the possibility of damaging the transceiver.
4. Please ONLY use WOUXUN supplied antenna to avoid the possibility of damaging the transceiver.
5. Neither expose the transceiver directly to the sunlight nor in the overheated places for a long time.
6. Keep the transceiver away from the dusty or humid places.
7. Clean the transceiver with a mild brush/cloth or detergents instead of the aggressive chemical material.
8. Do not transmit before well installing the antenna.
9. If any abnormal odor or smoke is detected from the transceiver, please power it off immediately, then remove the batterypack from the transceiver. And contact your WOUXUN dealer.

NOTE ⚠

» All the above mentioned suggestions and warnings are compatible for all WOUXUN series transceivers and accessories. Please contact your WOUXUN dealer about any upset operation.

» WOUXUN manufacturer is not responsible for any safety or operation problems, which are caused by using the incompatible accessories or parts.

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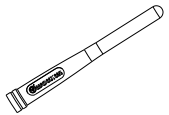
Unpacking and checking equipment

Carefully unpack the transceiver. We suggest that you identify the items on 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


High gain antenna


Lithium-ion batterypack


Intelligent charger


Beltclip


Handstrap


User's manual


Service card

Learning Equipment

Main Features List

1. Different frequency ranges suitable for different countries or areas: (TX/RX)
   UHF: 400-470MHz/350-390MHz/
   400-480MHz/420-520MHz
   VHF: 66-88MHz/136-17MHz/
   245-250MHz/216-280MHz
   76-108MHz FM Radio
2. High and Stable Output power(10Watts)
3. DTMF Encode and Decode
4. Inspection, Monitor, Stun and Kill
5. 16 Groups of Banking, 256 Memory Channels
6. VOX
7. SOS
8. Emergency Alarm
9. Single Tone Frequency 2100Hz/1750Hz/
   1000Hz/1450Hz
10. Priority Channel Scan
11. Lamp
12. Scan Multi-Definition,
    Channel Definition for Scan
13. Radio Direct Charging
14. DIY Extended Interface
15. Bandwidth(25KHz/12.5KHz)
16. PTT-ID
17. Editable for Non-Standard Tone(CTCSS/DCS)

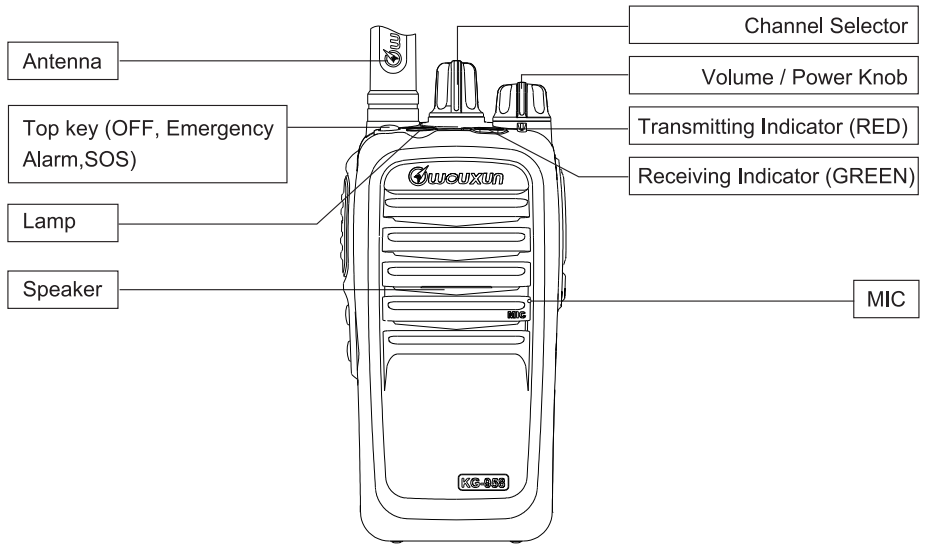
Whole Radio	
Frequency Range	different frequency ranges suitable for different countries or areas:(TX/RX) UHF: 400–470MHz/350–390MHz/400–480MHz/420–520MHz VHF: 66–88MHz/136–174MHz/245–250MHz/216–280MHz
Step	5KHz / 6.25KHz / 10KHz / 12.5KHz / 25KHz / 50KHz / 100KHz
Memory Channels	256CHs
Work Mode	F2D / F3E
Work Temperature	–20℃ ~ 40℃
Antenna Impedance	50Ω
Power Supply	7.4VDC
Weight	340g
Size	132 × 62 × 37(mm)

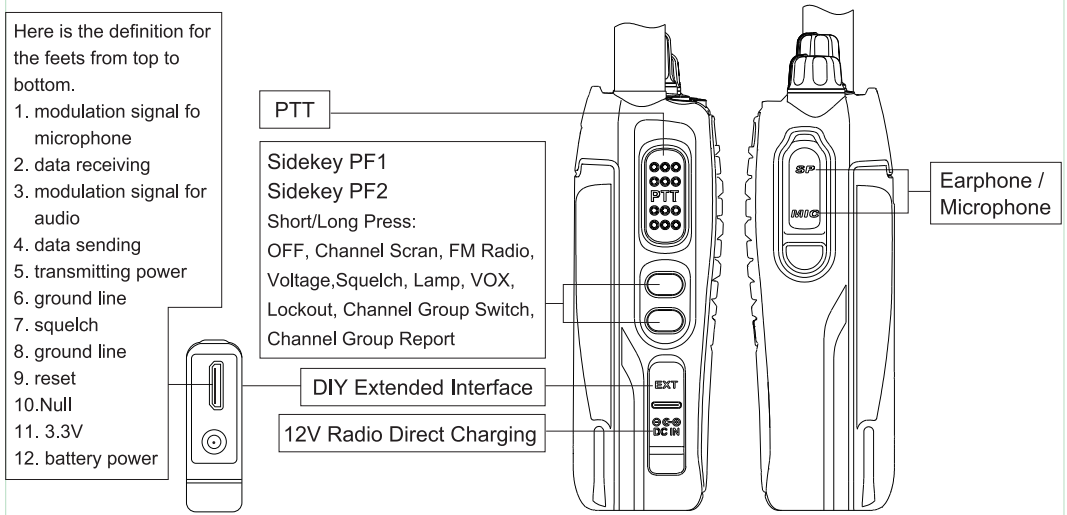
Receiver	Wide Band	Narrow Band
Adjacent Channel Selectivity	⩽70dB	⩽60dB
Inter–modulation	⩽65dB	⩽60dB
Spurious Response	⩽70dB	⩽70dB
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB (0.3~2.55KHz)
Squelch Rate	⩾45dB	⩾40dB
Audio Distortion	⩽5%	
Output Power	⩽500mW	
Sensitivity	UHF / VHF:0.25μV (12dB SINAD)	

Specification

Transmitter	Wide Band	Narrow Band
Modulation	16K F3E	11K F3E
Adjacent Channel Power	⩾70dB	⩾60dB
Spurious	⩾60dB	⩾60dB
Audio Response	+1~3dB (0.3~3KHz)	+1~3dB (0.3~2.55KHz)
Squelch Rate	⩾45dB	⩾40dB
Max Frequency Offset	± 5KHz	± 2.5KHz
Frequency Stability	± 2.5ppm	
Audio Distortion	⩽5%	
Output Power	10W / 5W / 1W (VHF)	
	10W / 4W / 1W (UHF)	

Description of transceiver





Volume Adjustment

Rotate the power switch / volume control knob clockwise to conduct the power supply. Then adjust the volume by rotating the knob. Rotate the knob counter-clockwise to power off.

Channel Encoder

Rotate the encoder knob to select the desired channel. Clockwise rotation can raise the channel number while counter-clockwise rotation lowers the number. The encoder also can hear the annoucement of the current channel number.

There are 256 memory channels, with 16 groups of banking, each group is including 16 memory channels. Please definite the sidekey to switch the groups.

Top Key

There are three options for the definition of top key, Emergency Alarm, SOS, OFF.

Emergency Alarm: radio transmits out its ID and alarm code, while there is alarm bell from the speaker.

SOS: there is alarm bell and tone sent out for help.

Sidekey PF1

There is short press and long press(for 1 second) operation.

There are 9 options for definition, Channel Scan, FM Radio, Voltage, Squelch, Lamp. VOX, Lockout, Channel Group Switch, Channel Group Report, OFF.

Channel Scan

Better to monitor all the channels, radio will scan the channel on the list one by one. It would call out the channel number when receiving signal, so user can switch to this channel for communication directly.

FM Radio

The receiving indicator flashes green when this function is ON, and it is automatically search for the radio stations. It stops at the available station for listening.

Search the radio station should be completed by sidekey PF1 and PF2. When PF1 is defined to FM Radio function, PF2 will be automatically changed to radio tuning key, vice verse.

Press defined sidekey again to exit from this function.

Voltage

Green light flashes three times, radio is full voltage.

Green light flashes twice, radio is middle voltage.

Green light flashes once, radio is low voltage.

When red light flashes once, radio is out of voltage and suggested to replace of battery or recharging.

Squelch

Radio receives signal on the current channel when squelch is ON.

Lamp

Turn on or off the lamp function.

VOX

Turn on or off the VOX function.

Lockout

There are three options for lockout, keypad+encoder+PTT, keypad+encoder, keypad.

Channel Group Switch

There are 256 memory channels, every 16 channels is one group, 16 groups in total. Press defined sidekey to switch to the specified group accoring to the current number of encoder.

I.e., it shows 9 of the channel encoder, press defined sidekey, radio will switch to GROUP 9.

Channel Group Report

Radio is supported to report the current channel group number if needed.

Sidekey PF2

Please refer to the definition of sidekey PF1.

Battery Life

Here is the Work Time for battery usage.

TX:6S, RX:6S, Standby: 48S

Battery	Output Power	Work time(Hours)
3200mAh Batterypack	High	12

Standby for 96 hours without transmitting and receiving.

CTCSS / DCS

The CTCSS/DCS is helping user to avoide some useless calls. This radio is supported to standard and non-standard CTCSS/DCS.

Standard CTCSS is 50 groups in total, from 67.0HZ to 254.1HZ(see the following sheet).

Non-Standard CTCSS is from 62.0HZ to 255Hz with 0.1HZ step.

Standard DCS is 105 groups in total, negative and positive code, range is from D023N to D754I (see the following sheet).

Non-Standard DCS is from DN000-DI777(excluded 8 or 9, i.e. 680, 917 are illegal.).

CTCSS

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

DCS

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

Power Switch

Press PTT+Sidekey PF1 to switch the output power from high, middle and low levels.

Red light flashes once, radio is switched to low power.

Red light flashes twice, radio is switched to middle power.

Red light flashes three times, radio is switched to high power.

This power switch is only temporary operation.

Bandwidth Selection

Radio is working under the FM(±25K) wide band or the FM(±12.5K) narrow band.

Busy Channel Lockout

This function is helping to interrupt other radio which is working. If the channel is occupied, then transmitting is forbidden.

Scan Adding

Please use the programming software to add the specified channels to the scan list.

Mute mode

Speaker is turned on or off when receiving in different status.

Tone(QT), speaker is on only radio receives the compatible tone.

Tone or signaling, speaker is on if radio receives the compatible tone or DTMF carrier signaling.

Tone and signaling, speaker is on if radio receives the compatible tone and DTMF carrier signaling.

Voice Guide

Turn on or off the voice guide.

Battery Save

Radio will automatically activate the battery save function 10s after there is no signal or any operation if this function is programmed. It turns off the receivers circuit for a while and then re-open for signal detect in order to save power consumption, and it is activated immediately receiving signal or there is any operation on the radio.

Standby for battery save can reach 96 hours.

Transmit Overtime Timer

This function is helping preventing some channel which is occupying and working too much time, or radio is working overtime to get broken. The radio will be forced to stop transmit for a while after there is overtime prompt. Time selectable for the overtime transmitting is from 15s to 900s.

Transmit Overtime Alarm

When radio is transmitting overtime, there is indicator alarm for overtime transmitting.

BEEP

Beep is prompt for any operation, improper operation or faults on this radio.

Transmit Prompt (ROGER)-

Here are four options for the transmit prompt.

OFF: No prompt for transmit.

BOT: Press PTT and there is prompt for beginning transmitting.

EOT: Release PTT and there is prompt for stopping transmitting.

BOTH: Press and release PTT, there is prompt for beginning and stopping transmitting.

Single Tone

This is helping activate the repeating system by the single tone pulse. Some repeater is required to have the single tone pulse activated unless the repeater is already working. The options are 1000Hz, 150Hz, 1750Hz and 2100Hz.

Press PTT and PF2 at the same time to send the single tone pulse.

Squelch

Squelch is opened or closed according to the different sensitivity of signal. When the squelch is opened, the signaling is compatible then speaker is ON. Some weak signals could not be received in time if the squelch level is high, while radio is easy to get interrupt by some useless noise or signals if the squelch level is low.

VOX

VOX function is helping avoid manual PTT every time, radio will transmit automatically if the VOX circuit detects the microphone of transceiver. Please pay attention to VOX sensitivity. VOX circuit detects the voice if the VOX sensitivity is higher and the voice is louder.

VOX Delay

It is delay time setting for PTT after VOX is sent.

Call Ring

There is clear ring prompt from speaker when receiving the correct DTMF encoding signal.

Repeat Receipt

The receipt for radio when it is well connecting to the repeater.

Lockout

Keypad, encoder, PTT are all selectable to lock out in order to prevent any mistake to change the unnecessary channel number or send the signals.

PTT-ID

BOT, press PTT to send out the ID.
EOT, release PTT to send out the ID.
BOTH, both press PTT and release PTT to send out the ID.

ID Delay

The time to send PTT-ID after press PTT.

DTMF Side-Tone

There is DTMF side-tone when radio sends PTT ID in the transmitting mode.

Scan Group

Specify the group for scanning.

Work Group

Specify the working group.

Channel Scan Mode

Radio stops scanning on the channel or frequency which is receiving the signal. There are three options to continue or discontinue the scan.

Time (TO): There is no operation 5s after receiving the signal, then radio continue scanning. Radio transmits on the specified channel according to the channel encoder , and then stops scanning after transmitting.

Carrier (CO): It stops scanning when receiving signal, and then continues scanning 3s after signal disappear. Radio transmits on the specified channel according to the channel encoder, and then stops scanning after transmitting.

Search (SE): It stops scanning when receiving signal. Radio transmits on the specified channel according to the channel encoder. Then it is standby on the current channel according to encoder 10s after transmitting if no operations.

Tone Scan Switch

It checks whether the tones are compatible when scanning.

Priority Channel Switch

When priority channel function is switched ON, radio is monitoring on the priority channel every 3 seconds. It is switched to priority channel for receiving if receiving carrier signal on the priority channel.

Priority channel is only for receiving. Please switch to the current channel to the priority channel if transmitting.

Priority Channel

Select the specified channel to priority channel.

Low Voltage Prompt

When the voltage is too low, there is prompt for low voltage every 5 seconds, and also there is transmitting indicator flashing red. If you press PTT now, there is "low voltage" voice reminder.

Remote Control

Before using remote control function, it should set the radio's ANI ID and main control code. These settings should be programmed only via programming software.

(1) Stun (CB)

Definiton of Stun: The communication is only allowed the memebers to hear, not allow the other members to transmit. Managers only need to transmit signaling to stun the radio, make the radio no receive or transmission.

(2) Kill (AB)

The definition of kill: When the radio is lost, the manager can use this function to kill the radio in order to make the radio no transmission or receive.

(3) Monitor (DA)

The definition of monitor: When the manager wants to know what the members are doing.

(4) Inspection (DB)

The definition of inspection: When the manager wants to know if the memebers are on duty, the function will help him. The manager transmits inspection signaling, the members'radios automatically reply to the manager(The replies are members'ANI ID Codes).

Control the radio method: ANI ID of Control Radio+Control Code+ANI ID of the controlled radio

Press PTT and input the ANI ID of control radio (i.e.123456) through keypad at the same time, and then input control code (KILL CODE AB), finally, input the ANI ID of controlled radio (i.e.654321), release PTT and then the kill function by remote control is completed.

Note:

》There is no keypad for this radio to transmit DTMF tone, so it is only workable controlled radio.

》Please use # to make up the complete ANI ID if the ANI ID is less than 6 digits when inputting the ANI ID manually, i.e. 123#+AB+654#.

》Resend the stun code, to activate the stunned radio by remote control.

》Resend the kill code, to activate the killed radio by remote control.

DTMF Signaling

a. All Calls

Press PTT, send the ANI ID of radio, and input * and # keys.

b. Group Calls

Press PTT, send the ANI ID of radio, and input group number (the first digit of called radio) , * key and * key.

c. Selective Calls

Press PTT, send the ANI ID of radio, input the ANI ID of the called radio.

This radio is only supported to the called radio..

Wire Cloning

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

How to use the intelligent charger

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

While the GREEN indicator continuously flashes. That means the charging is complete.

3. The charging time by intelligent charger is around 4 hours and 30 minutes.

NOTE ⚠

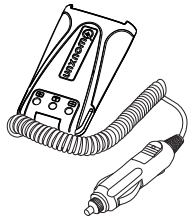
» When inserting the exhausted batterypack, the intelligent charger will precharge the batterypack in trickle form. The RED indicator will be flashing at the moment. This process is lasting for 10-20 minutes. And then the charging is normal. Red indicator continuously flashes. And then the GREEN indicator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

» Trickling charging the exhausted batterypack is in order to protect lithium-ion batterypack better.

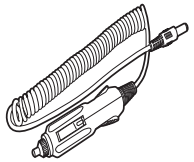
Radio Direct Charging

1. Please insert the power adaptor into the outlet (AC:90-240V), and the other parts will be inserted into the 12V charging port of the radio, then there is "Beep" prompt for charging started.
2. There is two "Beep" prompt if charging is completed.
3. The charging time by the 12V charging port on the radio is around 6 hours and 30 minutes.
4. Please turn off the radio before charging, and then restart the radios after 5 to 10 minutes in order to protect the batterypack.
5. Current available is 600mA, and full voltage is 8. 35V.

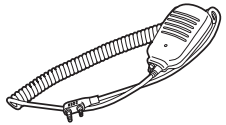
Optional Accessories



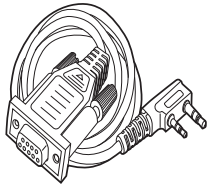
Eliminator



Car charger

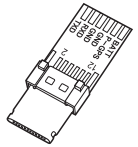


Speaker/Mic



Programming cable

Headset



Connector for extended interface

Trouble Shooting

Trouble	Solution
No power on.	》Voltage is exhausted, please replace of new battery or recharge for it. 》Battery is install improperly, please re-install it.
Battery life is short.	》The battery is out of use, please replace of a new one. 》Charging is not full, please make sure it is full and correctly charged.
Receiving indicator flashes green but no audio out.	》Please ensure the volume is loud enough. 》Check the tone of the working channels or frequency is compatible or not.
Keypad is not working.	》Keypad is locked. 》There is key stuck.
Radio is transmitting automatically in standby.	》VOX is opened or not, check the VOX level.
Other noise from the comunicating groups.	》Please check the tones of all channels in the group.

Announcement

Gwouxun 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 Gwouxun without prior notice.

Version: KG-958-1610