

16.2x11cm

*Thanks for buying the **Qwouxun** 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 **Qwouxun** PORTABLE TWO-WAY RADIO. This manual is suitable ONLY: KG-998.

## 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 battery pack 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 battery pack 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 of your 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 battery pack



Intelligent charger



Beltclip



Handstrap



User's manual



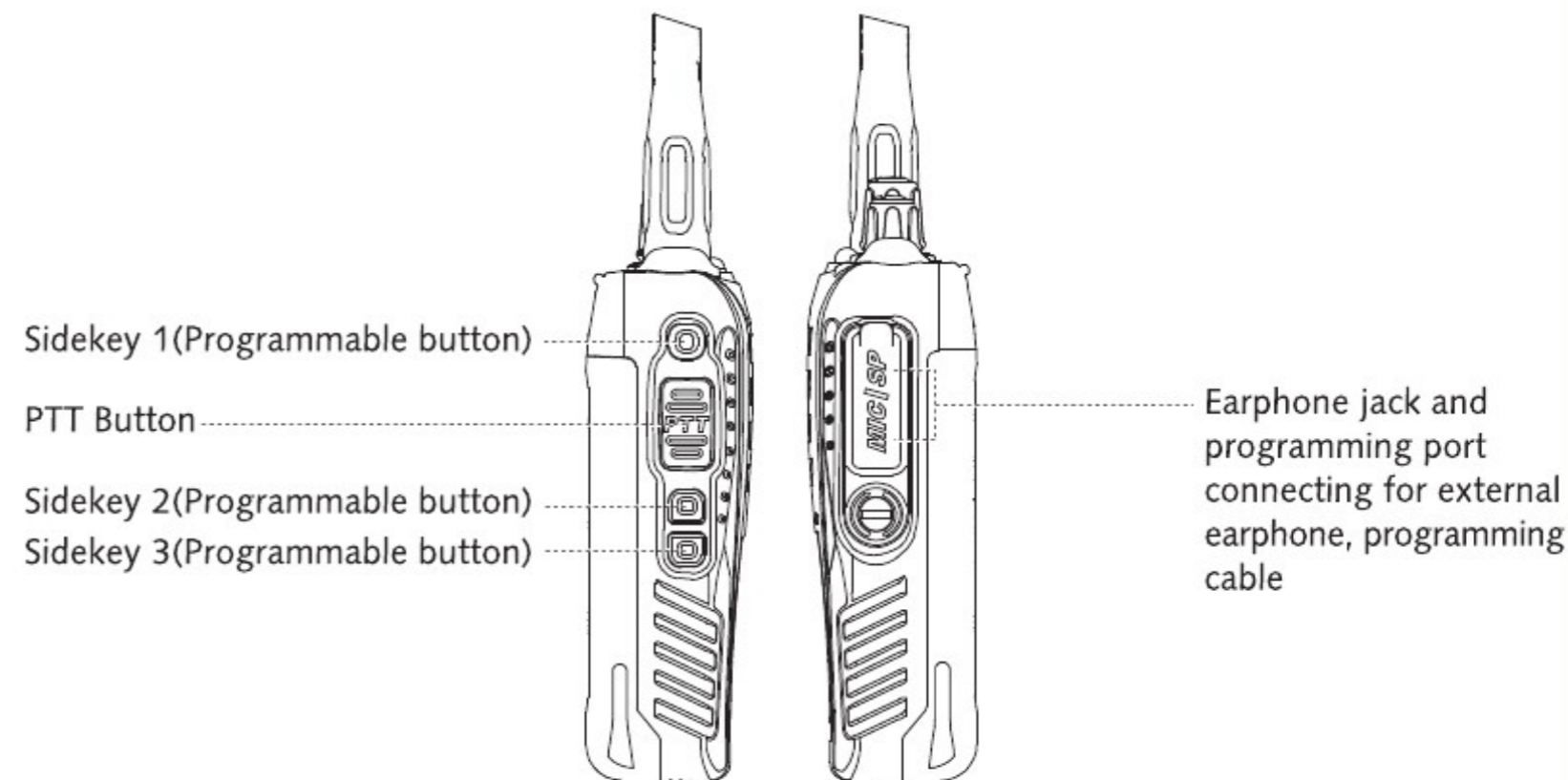
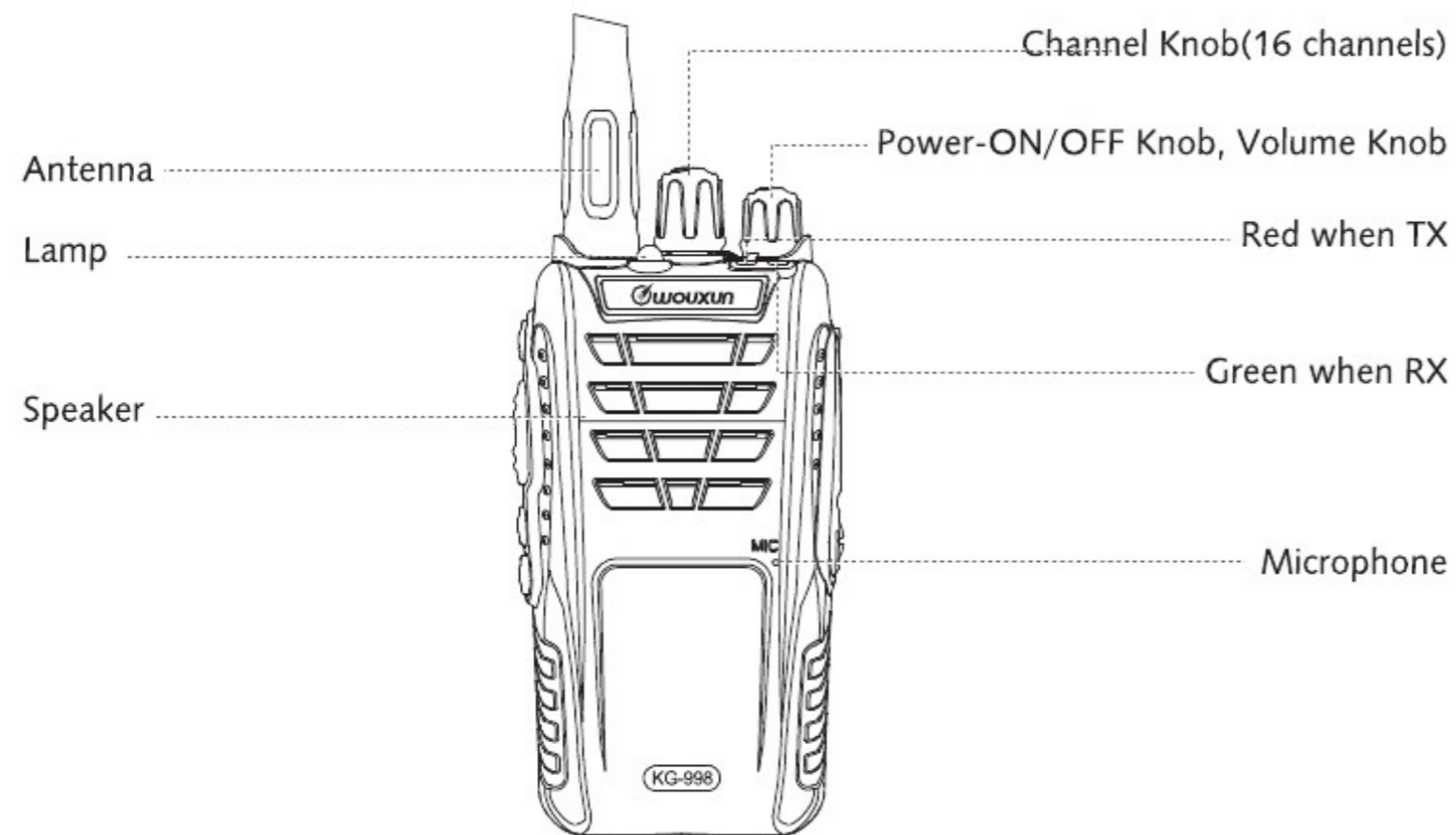
Service card

## Description of functions

1. Output Power: VHF: 5W/1W, UHF: 4W/1W, PMR: 0.5W
2. DTMF Encode and Decode
3. VOX
4. CTCSS/DCS(standard and non-standard)
5. VOX Delay
6. English Voice Guide(Selective Other Languages)
7. 25KHz/12.5KHz bandwidth(PMR only 12.5KHz)
8. High battery capacity selectable(2600mAh)if needed
9. Multi-way scanning
10. Busy Channel Lockout
11. Low Voltage Prompt
12. TOT
13. PC programming
14. Channel Scanning Adding
15. Lamp
16. SOS
17. Alarm Emergency
18. Selective Calls
19. Firmware Upgradable
20. Power selectable by high, middle, low (Except PMR)

## Getting started

### Description of transceiver



## Programming assistance function

User can, as required, set the following assisted functions for PF1 and topkey via KG-998 programming software:

- Monitor ON
- Monitor OFF
- Scan ON
- Scan OFF
- VOX ON
- VOX OFF
- Lamp ON
- Lamp OFF

## Operation steps

1. 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.
2. 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 announcement of the current channel number.



## Function operation and instruction

### NOTE

» All the function operations are programmable via KG-998 programming software.

### CTCSS & D.C.S

This transceiver is equipped with CTCSS (Continuous Tone Controlled Squelch System) and D.C.S (Digital Controlled Squelch) functions. You can ignore the unwanted calling from the frequency via this function. Only when receiving the same CTCSS tone or D.C.S code, the transceiver will release mute.

### NOTE

» CTCSS or D.C.S cannot make the dialogue concealed or encrypted, but only can prevent you from the unwanted dialogue.

### SQL

When squelch function is on, and the signaling is compatible, there is audio output from speaker. The higher level for squelch is programmed, there are more weak signals will be avoided. If you program the lower level of squelch, radio will be easily interference with the noise or other useless signals.

### Power Save Mode

When save function is ON, the transceiver automatically activates to voltage save mode 10 seconds

after there is no signals or any operations. It cuts off the receiver circuit for a while in order to save voltage, and it continues working when there is signal detected. The save mode is exit if there is any signal or operation onto the transceiver.

### Time-out Timer

Time-out timer is to prevent the transceiver from continuous transmitting for a long time. The transmitting will be interrupted compulsorily when the continuous transmitting time is over than the preset value. This function is to prevent the transceiver from being overheated and damaged.

### Scan

This function is a receiving way for monitoring the wanted channel communication. Press PF1 that is programmed as "Scan". The transceiver will scan one by one according to the channel numbers on the scan list. When scanning, green light flashes. Indicator LED illuminates green when a certain channel receives signals and the signaling types are matched. While the scan function is activated, the transceiver will check the calling being available in the scan channel. If there are signals, it will switch to the channel for receiving calling.

### Scan Mode

TO: After searching signals, the transceiver will continue scanning if without any operation within 5 seconds. Press PTT key, the transceiver transmits the appointed channel by encoder. Scan will stop after transmitting.

## Function operation and instruction

CO: The transceiver will stop scanning when searching a signal. It will resume after 3 seconds when the signal disappears.

Press PTT key, the transceiver will transmit the appointed channel by encoder. It will stop scanning after transmitting.

SE: Scan will stop when receiving a signal. Press PTT key, the transceiver will transmit the searched channel.

It will be back to the appointed channel by encoder after transmitting if there is no operation in 10 seconds.

### Scan Adding

Note: ■ Radio only scans the channels which is added to scan list.

■ Method: Program it via software.

### Busy channel lockout

This function is to prevent the interference of other communicating channels. If the selected channel is occupied, press PTT, the transceiver can not transmit.

### VOX

When detecting voice, the transceiver will switch to transmitting mode automatically.

As VOX should detect voice, transmitting will be a little delayed, and the beginning of the voice may not be transmitted.

There are 10 levels for VOX. Higher level, less sensitive.

### VOX Delay Setting

When VOX transmits is started after tone is detected, but there is no any more new tones, there is delay time programmable to keep transmission.

### Voice Guide

It is supported to have English and Chinese as voice guide.

### TX/RX Programmable

It is programmable to program any lawful frequencies for RX and TX within the specified frequency range.

### SOS

This SOS function can be pre-programmed on the sidekey for quick operation when emergency. Then the radio will send the SOS audio upon the channel through the encoder. The time for sending is 10 seconds every time, while interval is 5 minutes. During SOS time, it exit the SOS mode if carrier signal comes in, press PTT to transmit or other operations on the radio.

### Alarm Emergency

This Alarm function can be pre-programmed on the sidekey for quick operation when emergency. The radio will send the ANI Code+Alarm Code out upon the channel through the encoder, meanwhile, the speaker will be Alarm audio output for emergency. Press any buttons can exit from the Alarm Mode.

### DTMF

#### Optional signal

It is programmable to set the DTMF transmission via the programming software in the Optional signal.



## Function operation and instruction

Select DTMF is to set the DTMF encoding& decoding ON, while select OFF is to turn off the DTMF function.

### **NOTE**

» Please set this function in the CHANNEL MESSAGE by the programming software, which can be specially programmed for each channel.

### **DTMF Transmit**

It means the duration of transmitting DTMF, with the range from 50 milliseconds to 500 milliseconds.

### **DTMF Interval**

It means the interval for the digital when transmitting DTMF, with the range from 50 milliseconds to 500 milliseconds.

### **All calls, Group calls and Selective calls**

This series of transceiver is available for the ANI ID transmission, ANI ID editable and the DTMF decoding functions. It is programmable to use the All calls, Group calls and Selective calls function during the group communications without other equipments.

Please program the settings as followings:

#### **1. Editing the ANI ID code**

Every set of the communicating transceivers among the groups should be well programmed their codes respectively.

#### **2. DTMF signaling to be ON**

Every set of the communicating transceivers among the groups should be well programmed to open the DTMF signaling.

#### **Low voltage prompt**

When the voltage is low, the transceiver will sound two "Toot", and the light will flash every 10 seconds and a "Toot" sounds.

#### **How to use the intelligent charger**

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

### **NOTE**

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

## Trouble shooting

Please check carefully if your transceiver is faulty by following this chart.

If you maintain to have trouble you can reset your transceiver, which will help you eliminate your problem very often.

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Solution</b>
Transceiver will not be powered on.	<ol style="list-style-type: none"><li>1. The batterypack is not installed properly.</li><li>2. The batterypack maybe exhausted.</li><li>3. The batterypack is broken.</li></ol>	<ol style="list-style-type: none"><li>1. Re-install the batterypack.</li><li>2. Charge the batterypack.</li><li>3. Change the batterypack.</li></ol>
The receiver light is on and there is no sound from the speaker.	<ol style="list-style-type: none"><li>1. The power switch is not adjusted well.</li><li>2. Confirm if you use the right mute mode.</li></ol>	<ol style="list-style-type: none"><li>1. Turn the volume control again.</li><li>2. Reset the mute mode.</li></ol>
There is no receiving.	<ol style="list-style-type: none"><li>1. Check if you have installed your antenna right.</li><li>2. The signal you are receiving is very weak.</li></ol>	<ol style="list-style-type: none"><li>1. Install the supplied antenna.</li><li>2. Move the radio around till you receive the desired signal.</li></ol>

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Solution</b>
The transmitting light is on, but can not transmit.	<ol style="list-style-type: none"><li>1. Check whether you set the busy channel lockout function.</li></ol>	<ol style="list-style-type: none"><li>1. Turn off the busy channel lockout function.</li></ol>
Transmit automatically when the transceiver is in standby.	<ol style="list-style-type: none"><li>1. Check whether the VOX level is too low.</li></ol>	<ol style="list-style-type: none"><li>1. Turn off the VOX function, or set the VOX to high level.</li></ol>



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

Appendix 2

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



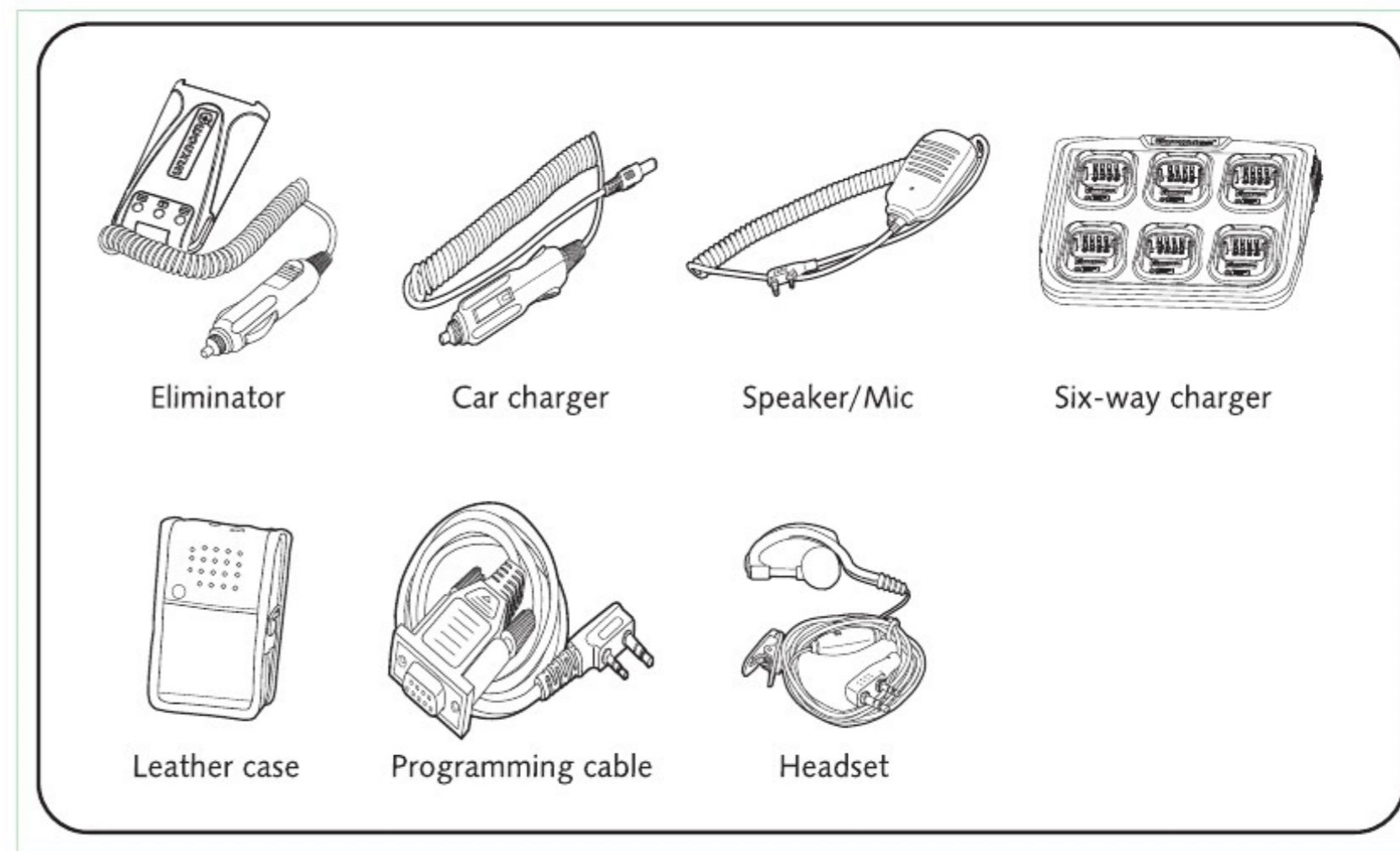
## Technology specification

Frequency ranges are suitable for different countries or areas	400-480MHz, PMR446MHz, 136-174MHz
Channel numbers	16 channels
Operating voltage	7.4V
Operating temperature	-30°C to 60°C
Operating mode	Co-channel or Dis-channel simplex
Output power	VHF: 5W/1W, UHF: 4W/1W, PMR: 0.5W
Modulation	FM (F3E)
Maximum deviation	$\leq \pm 5\text{KHz}$
Spurious radiation	$< -60\text{dB}$
Frequency stability	$\pm 5\text{ppm}$
Receiving sensitivity	$< 0.2\mu\text{V}$
Audio output power	$\geq 500\text{mW}$
Weight	248g
Size	125 x 62 x 37 (mm)

### NOTE

» Specifications are subject to change without notice.

## Optional accessories



## Announcement

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

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