USER'S MANUAL

车用照明车

QUAN SHENG

泉盛对讲机
QS TWO WAY RADIO
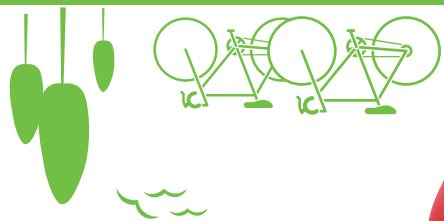
Thank you for purchasing this Radio.
We believe this easy-to-use radio will provide stable and reliable communication for you.
QS Radio incorporates the latest advanced technology.
As a result, we know that you will be pleased with the quality and features of this product.

PRECAUTIONS BEFORE USING

Please read the User's Manual before using. It gives you important information about how to operate the portable radio.

Please put the radio and accessories where the children can not reach.

Maintenance can only be performed by professional technicians.

Please use the standard battery pack and charger in order not to destroy the radio.

Please use the standard antenna, in order not to shorten the distance.

Do not expose the radio to sunlight for a long period of time, nor put it near the heat, nor use it in a high temperature environment.

Do not put it in extreme dust or wet nor on unsteady surfaces.

Keep it dry. (Rain or moisture will erode the electronic board).

Do not transmit when the antenna is not installed.

If you find bad smell or smog, please turn off the radio immediately. And take the battery off the radio, then contact with QS agent.

FEATURES

- PTT & headset dual using
- PC programmable
- Channel scan
- Time-out-timer(TOT)
- Low power alarm
- Voice prompt (Chinese or English)
- Wide/Narrow bandwidth
- Squelch level adjustable
- High/Low power selective
- CTCSS/DCS
- Busy channel lock

CONTENTS

SUPPLIED ACCESSORIES

Carefully unpack the portable radio. We suggest that you check the following items before you throw away the packing materials.
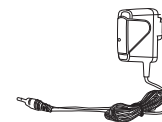
STANDARD SUPPLIED ACCESSORIES

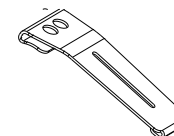| ITEM	QTY
Portable radio	1
Li-ion battery pack(3.7V)	1
Battery charger	1
Belt clip	1
External headset	1
User's manual	1

STANDARD SUPPLIED ACCESSORIES

Li-ion battery pack（3.7V）   Battery charger   Belt clip


External headset   User's manual

CHARGING NOTES (1)

Charging the Li-ion battery pack:

- Battery packs are not charged when they are shipped. Charge them before using.
- Initially charging the battery pack after purchase or extended storage (longer than 2 months) will not bring the battery pack to its greatest capacity, which can be done only after repeated charging and discharging two or three times.
- The average use time of battery pack is 15 hours
- After the battery is charged to its highest capacity, and then use it on the radio. If the radio still shows low power, please change a new battery pack.
- Do not short-circuit the battery terminals or throw the battery into fire.
- Never attempt to remove the casing from the battery pack.

CHARGING NOTES(2)

- Insert the input plug into 220V power, supply the indicator turns red; insert the output plug into the battery jack, the indicator turns orange; when finishing charging, the indicator turns red again.
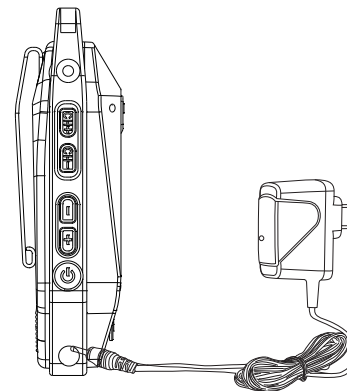
ATTACHING BATTERY PACK

● When attaching, take out the battery cover from the radio, put the battery into the radio aligning to the battery slot, then attach the battery cover.
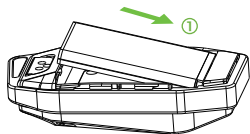
● When releasing, turn off the radio firstly.

  1 Take out the battery cover;
  2 Pull "UP" to take out the battery.
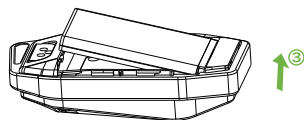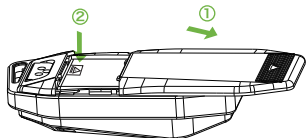
INSTALLING BELT CLIP

● Attach the belt clip to the radio as illustrated on the right.

INSTALLING EXTERNAL HEADSET

● Insert the headset plug into the headset jack.

NOTE: Please use the specified headset to make sure good communication.

DIAGRAM

Microphone

Channel+

Channel-

Volume-
Volume+

Power switch

Receiving/Transmitting
indicator light

PTT key

Speaker

Headset jack

Charging jack
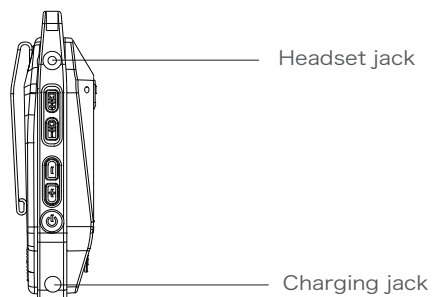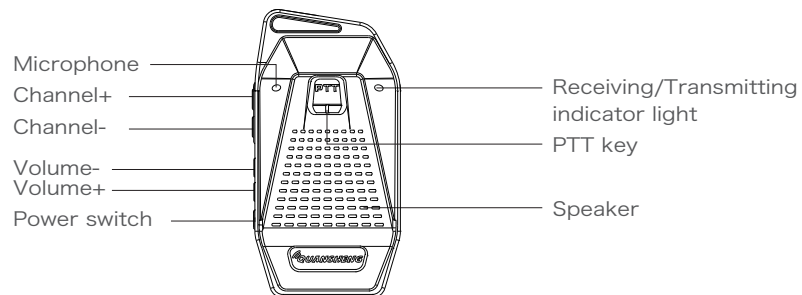
BASIC OPERATION

Power switch
- Press "Power switch" more than 2 seconds, the power is on. Operate again, the power is off.
- Transmitting
  1 Press and hold "PTT" key, then speak into the microphone in normal speaking tone. Please keep the microphone 3-4cm away from your lips to make sure good communication with the receiver.
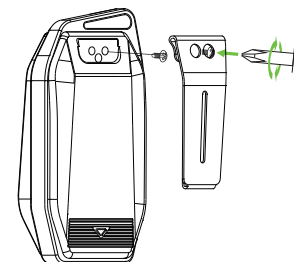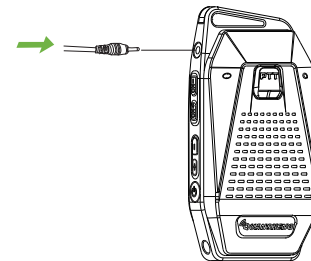 2 Press "PTT" in the headset, then speak normally to make sure good communication with the receiver.
  3 Release "PTT" key to receive signals.

Channel up(+) /down(-) key
- Press key "CH+" or "CH-" to choose your desired channel, and there will be voice prompt of the current channel number.
- press key "CH+" or "CH-" more than 2s to scan upwardly or downwardly.

Volume "+" "-"
- Press key "+" or "-", the volume is turned up or down, and there will be voice prompt of the current channel number.

Indicator
- Transmitting: Red LED Light
- Receiving: Green LED Light
- Standby: Green LED Light glitters every 5 seconds.

DIAGRAM   6   7   BASIC OPERATION

FUNCTION INSTRUCTION

PC Programmable

Plese use QS standard programming software. You can set the following features via the software: TOT, Squelch level, Voice prompt, CTCSS/DCS, Wide/Narrow bandwidth, High/Low power selection, Scan appending.

Channel Scan

1 Press key "CH+" or "CH-" more than 2s to scan upwardly/downwardly.
2 Set it in the " Scan appending" via programming.
3 Press "PTT" to exit.

> Note: When the scanning radio receives the signal, it stops in this channel if you press "PTT"; It keeps scanning after the signal disappear in 5s if you do not press "PTT".

Time-Out-Timer (TOT)

To limit the calling time, the radio will stop transmitting, and you will hear the warning tone if it transmits over the set time.

Low Power Alarm

Audibel tone will remind you when the battery is exhausted.

Voice Prompt (Chinese/English)

Set the voice prompt (Chinese or English) via the programming software.

FUNCTION INSTRUCTION

Wide/Narrow Bandwidth

Frequency space>25KHz, it is wide bandwidth.
Frequency space<25KHz, it is narrow bandwidth.

Squelch Level Adjustable

It helps to minimize interference from undesired weak signals and helps weak signals to be heard.

High/Low Power Selective

You can choose high or low power through the programming software.

CTCSS/DCS

Set up work groups/users with unique CTCSS/DCS to prevent disturbance in the same frequency.
CTCSS: 50 groups   DCS: 208 groups.

Busy Channel Lock

When it is on, it is forbidden to transmit if receiving the signals.
You will hear "Beep" when press "PTT".

CTCSS

01 67.0	18 118.8	35 183.5
02 69.3	19 123.0	36 186.2
03 71.9	20 127.3	37 189.9
04 74.4	21 131.8	38 192.8
05 77.0	22 136.5	39 196.6
06 79.7	23 141.3	40 199.5
07 82.5	24 146.2	41 203.5
08 85.4	25 151.4	42 206.5
09 88.5	26 156.7	43 210.7
10 91.5	27 159.8	44 218.1
11 94.8	28 162.2	45 225.7
12 97.4	29 165.5	46 229.1
13 100.0	30 167.9	47 233.6
14 103.5	31 171.3	48 241.8
15 107.2	32 173.8	49 250.3
16 110.9	33 177.3	50 254.1
17 114.8	34 179.9	

DCS

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

73	D452N	91	D627N	109	D032I	127	D132I
74	D454N	92	D631N	110	D036I	128	D134I
75	D455N	93	D632N	111	D043I	129	D143I
76	D462N	94	D654N	112	D047I	130	D145I
77	D464N	95	D662N	113	D051I	131	D152I
78	D465N	96	D664N	114	D053I	132	D155I
79	D466N	97	D703N	115	D054I	133	D156I
80	D503N	98	D712N	116	D065I	134	D162I
81	D506N	99	D723N	117	D071I	135	D165I
82	D516N	100	D731N	118	D072I	136	D172I
83	D523N	101	D732N	119	D073I	137	D174I
84	D526N	102	D734N	120	D074I	138	D205I
85	D532N	103	D743N	121	D114I	139	D212I
86	D546N	104	D754N	122	D115I	140	D223I
87	D565N	105	D023I	123	D116I	141	D225I
88	D606N	106	D025I	124	D122I	142	D226I
89	D612N	107	D026I	125	D125I	143	D243I
90	D624N	108	D031I	126	D131I	144	D244I

145	D245I	163	D346I	181	D464I	199	D662I
146	D246I	164	D351I	182	D465I	200	D664I
147	D251I	165	D356I	183	D466I	201	D703I
148	D252I	166	D364I	184	D503I	202	D712I
149	D255I	167	D365I	185	D506I	203	D723I
150	D261I	168	D371I	186	D516I	204	D731I
151	D263I	169	D411I	187	D523I	205	D732I
152	D265I	170	D412I	188	D526I	206	D734I
153	D266I	171	D413I	189	D532I	207	D743I
154	D271I	172	D423I	190	D546I	208	D754I
155	D274I	173	D431I	191	D565I		
156	D306I	174	D432I	192	D606I		
157	D311I	175	D445I	193	D612I		
158	D315I	176	D446I	194	D624I		
159	D325I	177	D452I	195	D627I		
160	D331I	178	D454I	196	D631I		
161	D332I	179	D455I	197	D632I		
162	D343I	180	D462I	198	D654I		

SPECIFICATIONS

GENERAL

Frequency range	VHF:136-174MHz UHF:400-470MHz, 470-490MHz
Rated voltage	DC3.7V(Rechargeable Li-ion battery)
Memory channel	99Channels
Antenna impedance	50Ω
Working manner	Same frequency single operation or different frequency single operation
Dimensions	89mmX46mmX20mm

TRANSMITTER

Output power	≤5W
Modulation (wide/narrow)	16KΦ F3E/11KΦ F3E
Maximum frequency deviation (wide/narrow)	≤5KHz/≤2.5KHz
Spurious radiation	<7.5uW
Preemphasis character	6dB/Per fold
Emission current	≤ 1.3A
CTCSS/DCS deviation(wide/narrow)	0.75KHz±50Hz/0.375KHz±50Hz
Modulation sensitivity	12mV
Modulation distortion	≤5%

RECEIVER

Sensitivity	-123dBm/-121dBm(12dB SINAD)
Modulation receiver bandwidth	5KHz
Audio frequency power	160mv/32Ω
Audio distortion	10%
Blocking	≥85dB
Intermodulation (wide /narrow)	60dB
Adjacent channel selectivity	70/50dB
Spurious rejection	≥65dB

All stated specifications are subject to change without notice or obligation.