Thanks for buying the series transceiver.

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

Warning ⚠

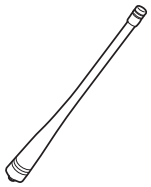
» Please do not use the transceiver when you are in the explosing places(such as gas, dust smoke etc.)
» Please turn off the transceiver while your car is being refueled or parked a the gas station.

Unpacking and checking of your equipment

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

Supplied accessories


Transceiver


High gain antenna


Li-ion batterypack


Intelligent charger


Beltclip


Handstrap


User's manual

Description of functions

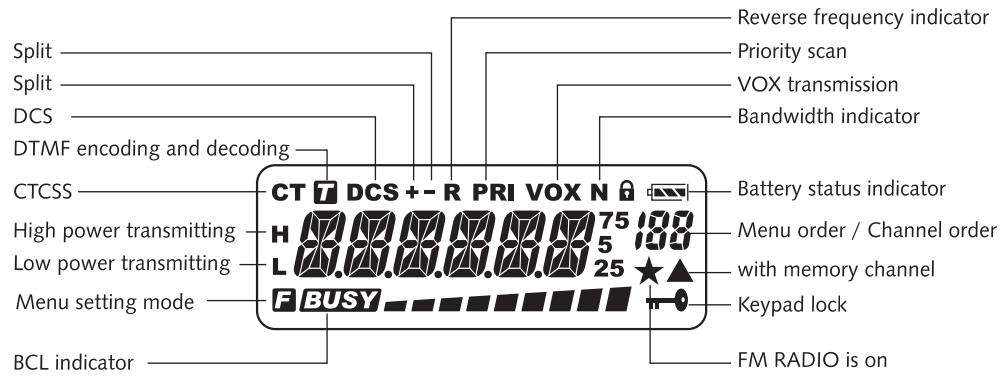
1. 151.820MHz, 151.880MHz, 151.940MHz, 154.570MHz, 154.600MHz
2. Output power: 32.5dBm
3. 5 memory channels
4. DTMF encoding and decoding
5. ANI (caller ID)
6. VOX
7. All calls, group calls and selective calls function
8. Calling ring function
9. Stopwatch timer
10. 105 groups DCS / 50 groups CTCSS
11. Voice guide
12. Wide / Narrow bandwidth selectable
13. Three color backlight display modes
14. Multi-display modes(channel order number/ channel frequency/channel name)
15. Reverse frequency function
16. Distant urgency alarm function
17. Multi scanning modes

18. Priority scan function
19. FM radio with frequency display
20. Frequency steps selectable
21. High capacity Lithium batterypack
22. Intelligent charger
23. Offset frequency setting (0-69.950MHz)
24. Set frequency shift direction
25. Busy channel lockout
26. Multi display modes when power on (full screen/BATT-V/others)
27. Low voltage prompt
28. Transmitting overtime prompt
29. Keypad lock (auto/manual)
30. Adding scanning channel
31. High/Low power changeable
32. Programmable by computer
33. Wire clone function
34. Menu/Channel reset

Getting started

LCD display

There are various indicators displaying on the screen when powering on. Please refer the below table to learn what the indicators stand for accordingly.



Note:

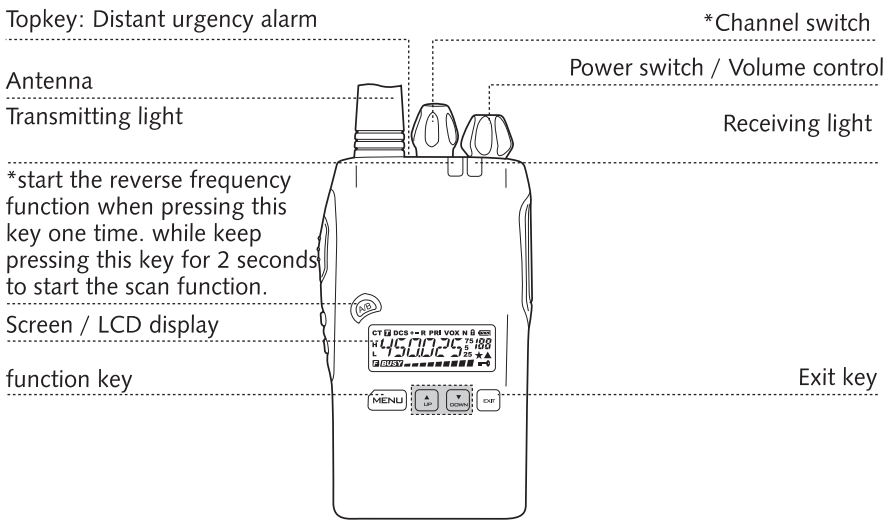
Full indicator for battery capacity

Exhausted indicator for battery capacity

Low indicator for battery capacity

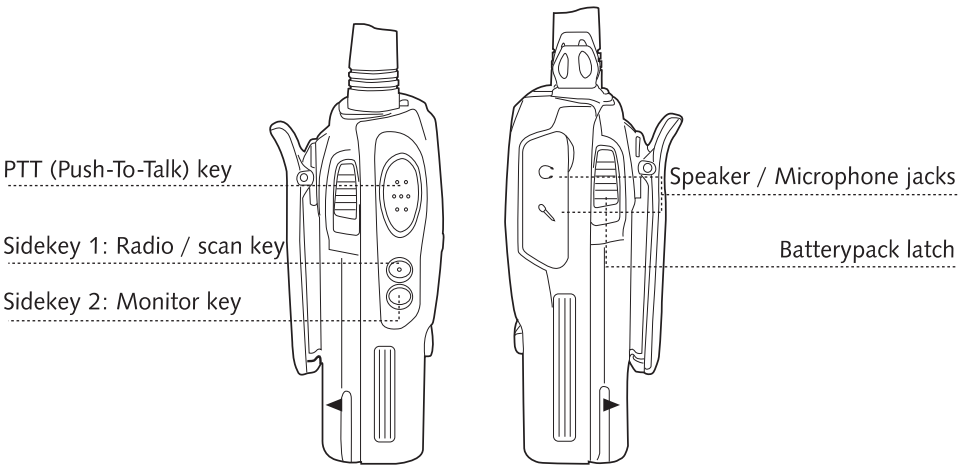
Receiving signal meter

Description of transceiver



Note: * means function instructions with item no. of this key.

Getting started



Getting started

Professional FM Transceiver

Quick search

Press the UP or DOWN key once can activate the quick search for respective settings or parameters of each function.

DTMF encoding

DTMF transmitting time: it means the duration of transmitting DTMF, with the range is from 80 millisecond to 500 millisecond and being editable by the programming software.

Spacing interval of DTMF transmitting: it means intevals for digital when transmitting DTMF, the range is from 50 milisecond to 500 milisecond and can be edited by programming software.

MENU A　UP B　DOWN C　EXIT D

Switch working mode

Channel mode ——— MENU + T-R SCAN ——— Frequency mode

Note: press MENU + A/B to change working mode when the transceiver have A/B button.

1750Hz Burst Tone

Press side key PTT and PF1 at the same time to transmit 1750Hz burst tone. The range of transmitting time is from 1 second to 10 seconds and can be edited by programming software.

How to operate

3. Press MENU , turn on the power at the same time, now the transceiver is working in the channel mode. Please press UP / DOWN to select CH-20,and enter into the repeater station for the communication.

Setting priority scan function

If you want to monitor the other frequency and check the certain preferred frequency at the same time, you can set priority scan functon.

E.G.: Scan six channels: set CH1, CH2, CH3, CH4andCH5 as the common scanned channels, and CH6 as the priority scanned channel. then the scanning order is as followigs:

CH1— CH6— CH2— CH6— CH3— CH6— CH4— CH6— CH5— CH6

When this transceiver detects signal on the priority channel when scanning, it will call on its freouencv. Please program the priority channel via KG-UVD1P programming software.

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, its 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 on the progress. When the RED LED turns to GREEN LED, the charging completes.

NOTE ⚠

» When the exhausted batterypack is inserted into the charger, it will be pre-charged in trickle power with the RED LED flashing until 10-20 minutes later, Then the RED LED in on, the charger enters into the normally charging mode. When the GREEN LED turns on, it is fully charged.

» Charging the exhausted batterypack in trickle power can protect the lithium batterypack better.

Programming guide (via USB programming cable)

a. Download, unzip and install the USB driver according to different operating system.
b. Restart your computer, and it shows the driver is installed successfully.
c. Download and unzip the matching programming software.
d. Connect the transceiver with your computer via the USB programming cable.
e. Power on the transceiver and open the software.
f. Read from the radio to check the connection.
g. Setting on the software accordingly.
h. Write to the radio.

How to operate

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 accordingly.

» Please note that once the first three steps are done well, the com port will be selected automatically when you open the software. However, according to the different computer settings, the com port may be needed to re-set, Please determine the port assignment from the device manager of the computer and select the correct communication port, which is available for the connection.

» If the connection is still not OK, please try another cable or another transceiver on another computer to double check.

Trouble shooting

Before the transceiver is regarded as being faulty,please double check according to the main problems as following chart. If the problems are still happening,please reset it to avoid some misfunctional operation, search assistance from the experienced technician or contact your buyer accordingly.

Problem	Solution
Transceiver will not be switched on, no power.	**1.** The batterypack maybe exhausted, please recharge it. **2.** The batterypack is not installed properly. please re-install it.
The batterypack cannot be used for the regular time.	**1.** The batterypack lifetime is over, please change a new one. **2.** Please double check with the charger or charge the batterypack for enough time.
The receiving light flashes but there is no sound from the speaker.	**1.** The power switch is not adjusted well. **2.** Confirm if the transmitting/receiving CTCSS/DCS is matching. Reset the CTCSS/DCS. **3.** Confirm if you use the right mute mode.

Trouble shooting

Problem	Solution
Keyboard and PTT switch do not work.	1. Confirm if the keyboard is locked. 2. Confirm if other keyboard is jammed.
The transceiver transmits automatically without pressing PTT in standby mode.	Please double check if the VOX function is on, and the VOX level is set too low.
Some functions cannot be stored normally.	Please confirm if the transceiver is working in channel mode,since some functions are ONLY set in channel mode via programming software.
There are other distored signals or noices (from other groups) in the channel.	Please change the CTCSS/DCS frequency.

Technical parameter

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

Technical parameter

DCS

76	D462N	82	D516N	88	D606N	94	D645N	100	D723N
77	D464N	83	D523N	89	D612N	95	D654N	101	D731N
78	D465N	84	D526N	90	D624N	96	D662N	102	D732N
79	D466N	85	D532N	91	D627N	97	D664N	103	D734N
80	D503N	86	D546N	92	D631N	98	D703N	104	D743N
81	D506N	87	D565N	93	D632N	99	D712N	105	D754N

Technical specification

Frequency range	151.820MHz, 151.880MHz, 151.940MHz, 154.570MHz, 154.600MHz
Memory channels	5 channels
Voltage	7.4V DC
Working temperature	-30℃(-22F) to + 60℃(140F)
Channels	Co-channel or Dis-channel simplex
Power output	32.5dBm
Mode	F3E(FM)
Maximum deviation	⩽ ±5KHz
Adjacent channel power	< -60dB
Stability	±5 ppm
Sensitivity	< 0.2 μV
Audio output power	⩾ 500mW
Weight	250g
Size	62 X 106 X 39 (mm)

NOTE ⚠

» Specification is subject to be updated without prior notice.

FCC Warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

SAR tests are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is a available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests or each product are performed in positions and locations as required by the FCC.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with an accessory designated for this product or when used with an accessory that Contains no metal.

To maintain compliance with the FCC's RF exposure guidelines, hold the transmitter at least 2.5cm from your face and speak in a normal voice, with the antenna pointed up and away from the face.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to comply with the FCC RF exposure requirements, the antenna installation must comply with following:

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

Your wireless hand-held portable transceiver contains a low power transmitter. This product sends out radio frequency (RF) signals when the Push-to-Talk (PTT) button is pressed.

The device is authorized to operate at a duty factor not to exceed 50%.