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 dependable features for all your communication needs.

GMRS FREQUENCY CHART (MHz)

CH. No.	CH. Freq.	CH. No.	CH. Freq.	CH. No.	CH. Freq.
1	462.5500	9	462.6500	17	467.5750
2	462.5625	10	462.6625	18	467.6000
3	462.5750	11	462.6750	19	467.6250
4	462.5875	12	462.6875	20	467.6500
5	462.6000	13	462.7000	21	467.6750
6	462.6125	14	462.7125	22	467.7000
7	462.6250	15	462.7250	23	467.7250
8	467.6375	16	467.5500		

IMPORTANT NOTICE, FCC LICENSE REQUIRED FOR GMRS OPERATION

This Series operates on GMRS (General Mobile Radio Service) frequencies which require an FCC (Federal Communications Commission) license. You must be licensed prior to operating on channels 1 - 23, which comprise the GMRS channels of this Series. Serious penalties could result for unlicensed use of GMRS channels, in violation of FCC rules, as stipulated in the Communications Act's Sections 501 and 502 (amended).

You will be issued a call sign by the FCC which should be used for station identification when operating

the radio on GMRS channels. You should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other GMRS users, and being prudent with the length of their transmission time.

To obtain a license or ask questions about the license application, contact the FCC at 1-888-CALL FCC or go to the FCC's website: http://www.fcc.gov and request form 605.

FCC Warning

To ensure that your expose to RF electromagnetic energy is Within the FCC allowable limits for general population use, alwaysAdhere to the following guidelines:

- DO NOT operate the radio without a proper antenna attached, as this may damaged the radio And may also cause you to exceed FCC RF exposure limits, A proper antenna is the antenna Supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.
- DO NOT transmits for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the *TX indicator lights red. You can cause the radio to transmit by pressing the "PTT" switch.
- ALWAYS kepp the antenna at least 1.5cm (0.6 inch) away from the body when transmitting and Only

use the belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this 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

NOTE 1: This equipment has been tested and found to comply with the part 95 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential install-ation. 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 equip-ment does cause harmful interference to radio or television reception, which can be determined by tu-rning 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 into 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.

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

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.

Contents

Contents

Professional FM Transceiver

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

Belt clip   Handstrap   User's manual
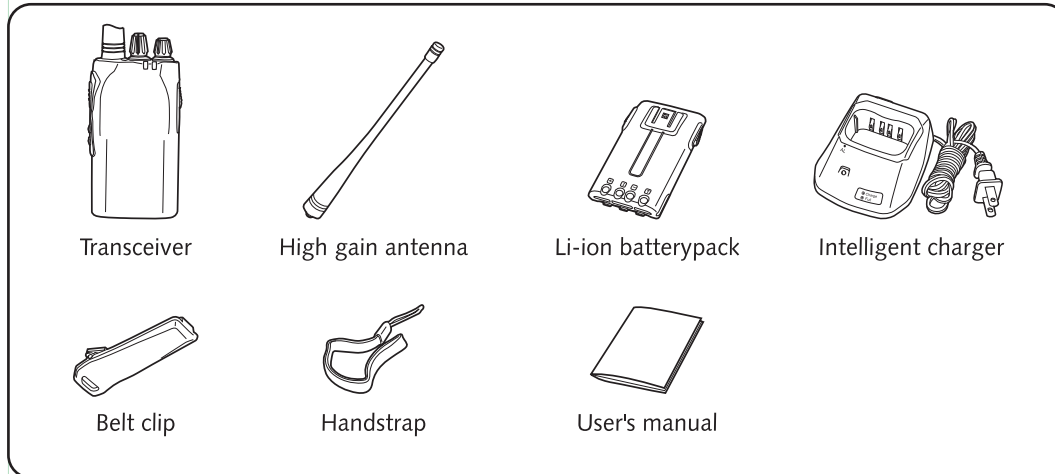
Description of functions

Professional FM Transceiver

1. Frequencies available:

   462.5500MHz, 462.5625MHz, 462.5750MHz,
   462.5875MHz, 462.6000MHz, 462.6125MHz,
   462.6250MHz, 462.6375MHz, 462.6500MHz,
   462.6625MHz, 462.6750MHz, 462.6875MHz,
   462.7000MHz, 462.7125MHz, 462.7250MHz,
   467.5500MHz, 467.5750MHz, 467.6000MHz,
   467.6250MHz, 467.6500MHz, 467.6750MHz,
   467.7000MHZ, 467.7250MHz.

2. Output power: 1W
3. Transmit voice prompt
4. 16 memory channels
5. Distant urgency alarm function
6. DTMF encoding and decoding
7. VOX
8. Priority scan
9. CTCSS/D.C.S
10. Voice guide (Chinese/English)
11. Wide bandwidth

12. Digital FM radio
13. High/Low power changeable
14. High capacity Li-ion batterypack
15. Intelligent charger
16. Wire-clone function
17. Multi scan modes
18. Busy channel lockout
19. Low voltage voice prompt
20. Transmit overtime prompt
21. Adding scanning channel
22. Programmable by computer
23. IP55 waterproof

Getting started

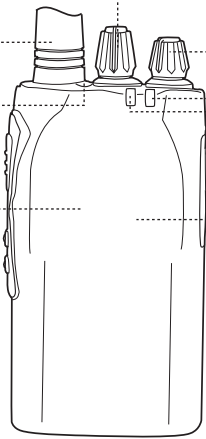### Description of transceiver

Channel selector

Antenna

Distant urgency alarm key

Speaker

Power / Volume switch

Receiving light

Transmitting light
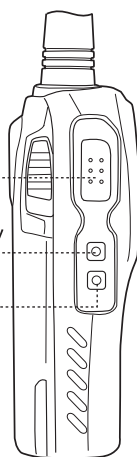
Mic

PTT (Push-To-Talk) key

Side key 1: FM radio/Scan key

Side key 2: Monitor key

Speaker/Microphone jacks

Batterypack latch

Programming assistant functions

It is able to program below miscellaneous functions on the sidekey PF1/topkey via programming software as needed.

- Turn on/off FM radio
- Turn on/off scan function
- Turn on/off alarm function

Basic operations

Professional FM Transceiver

Adjusting volume

Turn the Power / Volume switch clockwise to switch the transceiver power ON, and rotate this knob to adjust the volume. While counterclockwise rotating is to turn off the power.

Selecting channel

Rotate the channel selector to select your desired channel. Clockwise rotating is to increase channel number, while counterclockwise rotating is to reduce channel number and you will hear an announcement of current channel number.

Monitor key

The transceiver will announce the current channel number short when short pressing PF2 to activate the monitor function, and it will activate the squelch function when long pressing PF2 for 2 seconds.

NOTE ⚠

» All functions ONLY can be edited via the matching programming software.

1750Hz Burst Tone

Press side key PTT and PF1 at the same time to transmit 1750Hz burst tone.

How to operate

Working with Repeaters

This transceiver can work with the repeater. You can set the transceiver's transmitting/receiving frequencies and CTCSS/DCS tones matching to the repeater via progrmming software.Then it will access to the repeater.

CTCSS and DCS

This transceiver has CTCSS (Continuous Tone Controlled Squelch System) and DCS (Digitally Coded Squelch) functions. It means the transceiver can ignore the needless calling from other transceiver even though they operate on the same frequency via using CTCSS or DCS. ONLY the same CTCSS tone or DCS code signals are received, the transceiver squelch can be released.

NOTE ⚠

≫ CTCSS or DCS can not make the voice concealed or encrypted, but only keeps the transceiver from other needless callings.

DTMF

Optional signal

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

Setting ANI ID CODE (ANI)

ANI -ID switch

It is about the setting to turn ON/OFF the ANI ID transmission. If you select ANI-ID switch, it means that when you press/release PTT to transmit (according to the transmitting modes you select in the PTT-ID), the transceiver will automatically transmit the ANI ID code. While if you don't select the ANI-ID switch, it means that the ANI ID code will not be transmitted during the transmission.

How to operate

Call ring

The call ring function is about the ring prompt when the transceiver receives the matching DTMF signaling. The time for the ring prompt is preset in the Ring time. When it is out of the preset ring time, the transceiver will open the speaker to sound out the ring as prompt automatically.

Ring time

It means that the speaker will sound out a clear ring as prompt when the transceiver receives the correct DTMF signaling.

There are totally 10 levels for the ring time, each level is 1 second. OFF means to turn off the ring time setting.

ANI ID code

ANI ID Code can be made up by ten Arabic numerals(0~9) with 3 digit MIN and 6 digits MAX.

PTT-ID

This setting is about the transmitting modes for the ANI ID code when you press PTT to transmit. There are totally 3 modes selectable as followings:

BOT: Press PTT key to transmit the ANI ID code

EOT: Release PTT key to transmit the ANI ID code

BOTH: Both press PTT and release PTT key to transmit ANI ID code

09

PTT-ID Delay

It is about the delay time for transmitting ANI ID code.

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

OFF: Transmitting ANI ID code manually

ANI-ID Roger

This series of transceiver is available for the DTMF encoding and decoding function, which means that it can transmit its ANI ID code and also recognize the ANI ID code from the receiving party. Select this function is that there is prompt when the transceiver receives the ANI ID code from the receiving party.

Mute code

The mute mode means the modes for turning on the speaker. There are three selectable modes as followings:

QT: When the transceiver receives the signal which is strong enough to open the squelch and matches with the set CTCSS/DCS, the speaker will be activated automatically. If the transceiver doesn't set the CTCSS/DCS, the speaker will be activated once there comes the strong signal.

QT+DT: When the transceiver receives the signal which meets the QT condition and matches with DTMF signaling, the speaker will be activated automatically.

QT X DT: When the transceiver receives the signal which meets the QT or QT+DT conditions, the speaker

10

will be activated automatically.

NOTE ⚠️

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

DTMF Sidetone

When the transceiver is transmitting DTMF signaling, whether you prefer the speaker to be on and hearing the matching DTMF tone.

ON: Sidetone is on when transmitting ANI ID code.

OFF: No sidetone when transmitting ANI ID code.

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.

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2. DTMF signaling to be ON

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

3. ANI-ID switch to be ON

Every set of the communicating transceivers among the groups should be set the ANI-ID switch to be ON.

4. Mute mode to be QT+DT

Every set of the communicating transceivers among the groups should be set the mute mode to be QT+DT.

5. Call ring and ring time setting (if necessary)

NOTE ⚠️

≫ Every set of the communicating transceivers among the groups should be programmed the same channel information and the parameter.

≫ This series of transceiver is without keyboard and LCD display, it is only programmable to be called for the All calls, Group calls and Selective calls function.