

空白封面

16.2x11cm

Thanks for buying the transceiver.
This transceiver offers latest 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 turn off the transceiver in explosive environment (e.g. Coal gas, Dust, Steam etc.)
- » Please turn off the transceiver while refueling or parking at the gas station.

Precautions

Radios are high-quality with excellent design and advanced technology.

The following suggestions will help user fulfil the obligation of warranty, and realize the security of using the transceiver.

1. Please put the transceiver and all accessories away from the children.
2. Please do not disassemble the transceiver as non-professional user maybe damage the transceiver.
3. Please use the company attached Battery pack and charger to avoid damaging the radio.
4. Please use the company attached antenna to avoid shortening communication distance.
5. Please do not put the transceiver near to the heating appliance or expose it in the sun for a long time.
6. Please do not put the transceiver in extremely dusty, moist, watery or unstable place.
7. Please do not wash the radio with strong chemicals or strong lotion.
8. Please do not transmit before installing the antenna.
9. Turn off the power supply immediately if the transceiver emits an unusual smell or smokes, then take out the battery or Battery pack and notify dealer.

NOTE

- » All the above suggestions are used for radios and accessories. Please contact with dealer once the radios and accessories cannot be used.

Contents

Preparation	01-04
Charging	01
Install Battery pack	02
Install Antenna	03
Install Belt clip	03
Install Audio Accessory	04
Mic/Speaker Case Installation	04
Device Information	05-09
Description of Features	05
Specifications	06
Parts Instruction	07
Basic Operation	10-11
Status Indication	12
LED Indicator	12
Call	13
Group Call	13
Private Call	13
All Call	13
Reply	13

Contents

Receive Call	14
Receive Group Call	14
Answer Private Call	14
Answer All Call	14
Message(Only for radios with display and keypad)	14
Edit/Send Preset Message	14
Scan	15-18
Scan Digit Hang Time	15
Scan Analog Hang Time	15
Priority Alert Tone	15
Priority Channel	15
Priority Sample Time	15
Scan Designated TX Channel	16
Response	16
Mark Channel	16
Private Line Type	16
Signal Hold Time	17
Start/Stop Scan	17
Side Key Definition	18

Emergency Alarm	18-19
Send Emergency Alarm	19
Receive Emergency Alarm	19
Revert Emergency Alarm	19
Remote Control	20-21
Call Alert	20
Radio Check	20
Remote Monitor	20
Radio Disable	21
Radio Enable	21
ARTS	21
VOX	22
Privacy	22
FM Radio	22
Function Description	23-30
Contacts	23
RX Group List	23
Save Mode Receive	24
Save Preamble	24

Contents

Prompt Tone Disabled	24
CH Free Prompt Tone	24
Automatic Inspection Tone	25
Talk Permit Tone	25
Emergency Alarm Tone Time	25
Strange Number Tone	25
Reset Tone	25
TX Exit Tone	25
Receive Private Call Tone	26
Private Call Ring	26
Lone Worker Response Timer	26
Lone Worker Reminder Timer	26
TX Limit Fast Key	26
Disable Type	26
Color Code	27
TOT	28
TOT Rekey Delay	28
RX only	28
Talkaround	28

Group/Private Call Hang Time	28
Private Call Confirmed	28
Data Call Confirmed	29
DCCDM Switch	29
TX Interrupt Frequency	29
Allow Interrupt	29
Repeater Time Slot	29
TX Wakeup Message Limit	30
Remote Monitor Time	30
TX Sync Wake up TOT	30
CTCSS/DCS Encode and Decode	30
DTMF System	30-32
DTMF Contacts	32
Simple Troubleshooting	33-34
Optional Accessories	35
Disclaimer	36

Preparation

■ Charging

The Battery pack may be out of voltage during the long transportation, please re-charge the Battery pack with compatible charger before using it as following steps:

1. Insert power supply adaptor plug into jack of charger back.
2. Insert power supply adaptor plug into power socket.
3. Put Battery pack into charger.
4. According to the following charger LED light to know the current charging status.

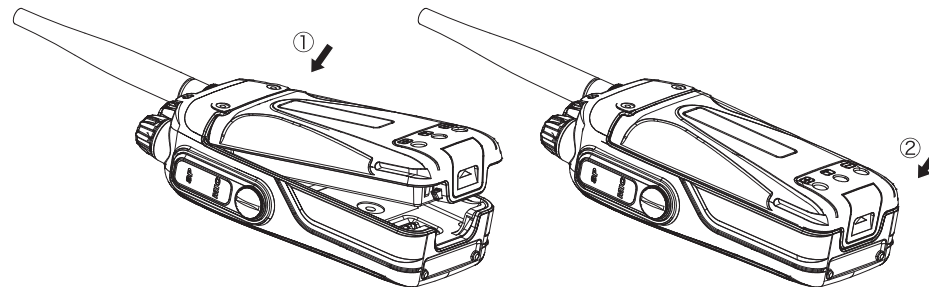
LED Indicator Light	Current Charging Status
LED(red)flash slow	Trickle charging(this status lasts 10~20minutes after put exhausted Battery pack)
LED(red)always on	Charge
LED(green)always on	Full charge
LED(red)flash quick	Abnormal charging

NOTE

- » Please do not short connect the Battery pack port or put it into fire.
- » Please do not take off the case of Battery pack.

Preparation

■ Install Battery pack

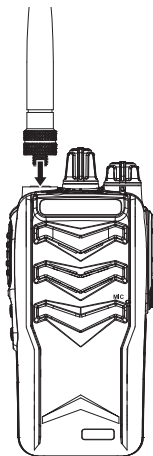


1. Aim the two card slot of Battery pack top at the card slot of the transceiver back, then press down the Battery pack until a clock tone, the bottom two release latch of the transceiver are locked.
2. Please turn off the transceiver before taking off the Battery pack, then lift the two release latch of transceiver back until Battery pack loose, take off the Battery pack.

Preparation

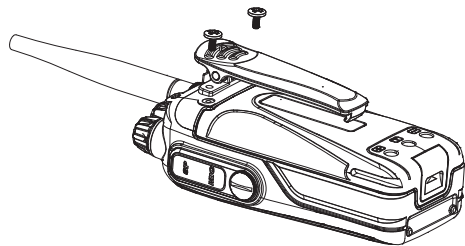
■ Install Antenna

Take the bottom of the antenna, aim at antenna port of transceiver top, rotate antenna clockwise until it's tight.



■ Install Belt Clip

Aim the screw holes of belt clip at radio's screw holes and lock the belt clip with two screws.

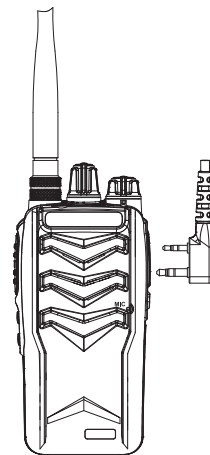


NOTE

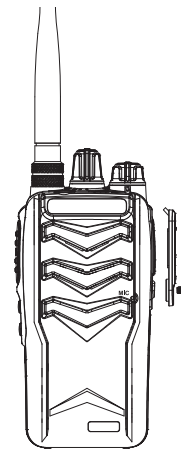
- » Please do not hold the antenna top to swing it, or else which would reduce the antenna work performance and life.
- » Please do not rotate the antenna fiercely when install the antenna.

Preparation

■ Install Audio Accessory



■ Mic/Speaker Case Installation



NOTE

- » Please lock the accessory port when take off the accessory to avoid influence the terminal waterproof feature.

Device Information

Description of Features

1. DMR and Analogue Radio
2. Digit voice encryption
3. Emergency alarm
4. VOX function
5. Priority channel
6. Scan TX designated channel
7. Low battery power off
8. One touch relay/Talkaround
9. Radio program password
10. Power save mode
11. Group scan
12. Tail elimination
13. Text Message (Only for radios with display and keypad)
14. Lone Worker
15. ARTS
16. Disable
17. Enable
18. Detection
19. Call Alert
20. Flashlight
21. CTCSS encoding/decoding (support non-standard)
22. DTMF encoding/decoding
23. Transmit time-out alert
24. FM Radio
25. Firmware Upgrade

Device Information

Specifications

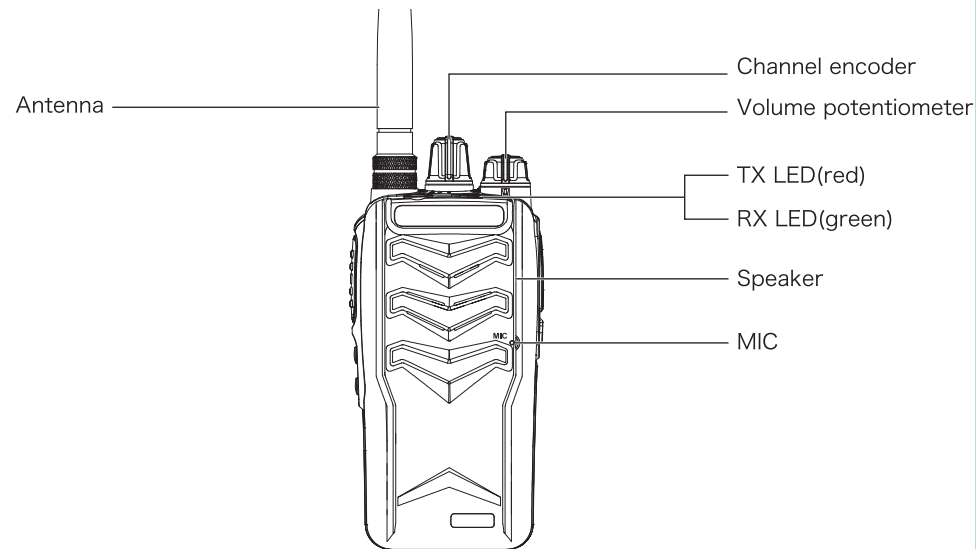
Intergration	
Operating Temperature	-20°C ~ 40°C
Antenna Resistance	50Ω
Voltage	7.4V DC
Weight	300g
Size	130×64×40.5mm
Transmitter	
FM Modulation	12.5KHz: 11K0F3E 25KHz: 16K0F3E
4FSK Digit Modulation	12.5KHz(data only): 7K60FXD 12.5KHz(data+voice): 7K60FXE
Adjacent Channel Power	≤-60dB
Frequency Stability	± 1ppm
Audio Distortion	≤5%
Audio Response	+1~ -3dB
Vocoder Type	AMBE+2TM
Digital Protocol	ETSI-TS102 361-1, -2, -3
Bit Error Ratio	≤5%
Modulation Limit	±2.5KHz: @12.5KHz

Device Information

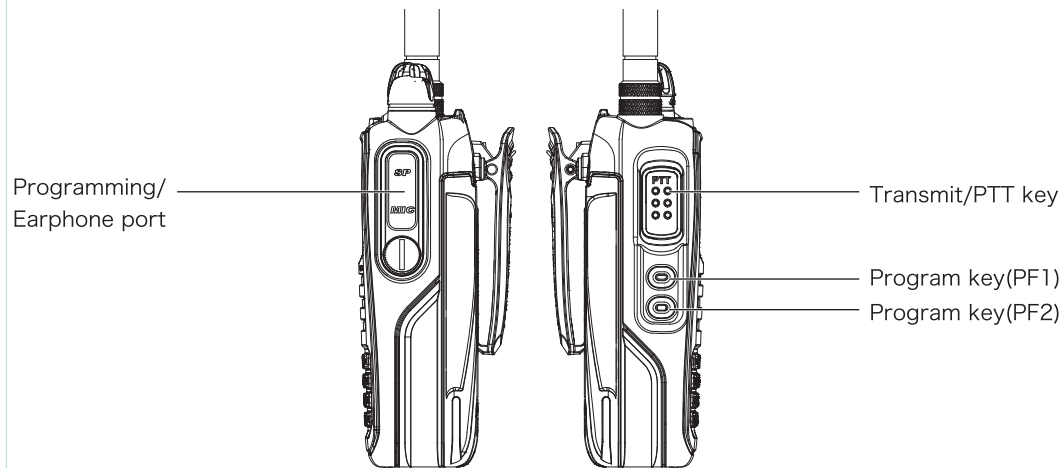
Receiving	
Analog Receive Sensitivity	0.25uV@12dB SINAD
Digital Receive Sensitivity	0.25uV(BER: 5%)
Adjacent Channel Selectivity	$\leq 60\text{dB}@12.5\text{KHz}$
Audio Response	+1 ~ -3dB
Audio Distortion	$\leq 5\%$
Audio Power	1W
Intermodulation	$\geq 65\text{dB}$

Device Information

Parts Instruction



Device Information



Note: Following function with program key:

All alert ON/OFF, Emergency mode ON/OFF, High/Low power select, Monitor, Temporary deletion of noise channels, One-touch 1-6, Repeat/Talkaround, Scan ON/OFF, Encrypt ON/OFF VOX ON/OFF, Switch area, Battery voltage indicator, Lone worker ON/OFF, Flashlight ON/OFF, Exit call.

Basic Operation

• Power on/off

Rotate the volume potentiometer clockwise until a clock tone, the radio power on. Rotate the volume potentiometer counter-clockwise until a clock tone, the radio power off.

• Volume Adjustment

Rotate the volume potentiometer clockwise to turn up volume, rotate the volume potentiometer counter-clockwise to turn down volume.

• Check Battery Voltage

When program key customized the battery voltage indicator, press the program key to check the current battery voltage through alert tone.

• Select Area

Area is a channel group, user can classify the channel with same property into a area to make a efficient management. The radio support 250 areas, each area can set at most 16 channel. User can select area as following methods:

1. Quickly enter "area" through program key, press [side key 1/side key 2] to select area, then press side key exit "area" .

Basic Operation

- **Select Channel**

Channel is a passage for signal transmission. User can select channel as following two methods.

1. Rotate channel encoder to switch channel.

Status Indication

LED Indicator

Indicator Status	Product Status
LED(green)always on	Receiving
LED(red)always on	Transmitting
LED(red)flash slow	Confirming private call/Trying connect repeater in relay mode
LED(red)flash quick	ARTS
LED(red)flash intermittent	Emergency alarm
LED(red+green)flash intermittent	Scan status/Digit channel receive call
LED(red+green)on simultaneous	Receiving digit voice encryption signal

Main Function

Call

- **Group Call**

Group call is a call of one to many.

Digit channel pre-set the group call contacts through programming software, then press PTT , the radio will make a group call in corresponding channel.

- **Private Call**

Private call is a call of one to one.

Digit channel pre-set the private call contacts through programming software, then press PTT key, the radio will make a private call in corresponding channel.

- **All Call**

All call is a call to all contacts of current digit channel.

Digit channel pre-set the all call contacts through programming software, then press PTT key, the radio will make a all call in corresponding channel.

- **Reply**

When receiving the group call or private call, after the call finished, during the group call hang time or private call hang time, then the radio can reply the call directly through pressing PTT key.

Note: The group call and private call hang time can be programmed.

Main Function

Receive Call

- **Receive Group Call**

The call of receiving group call need to set “group call list” , add the corresponding contacts of group call type to “group call list” of digit channel. “Group call list” can be programmed. Each “group call list” allowed to add at most 15 contacts of group call type.

- **Answer Private Call**

- **Answer All Call**

Message(Only for radios with display and keypad)

- **Edit/Send Preset Message**

Preset message: the common text message preset by dealer, the radio can be preset at most 50 message.

1. Preset text message can be programmed.
2. Send preset message: through programming key to set one touch access function to send preset message.

Main Function

Scan

The radio supports group scan, please set scan list and assign it to single channel before using scan function, the radio support at most 16 scan lists, each scan list can be allowed 31 single channel.

Scan list support analog、digit or digit/analog.

- **Scan Digit Hang Time**

After scanning the digit channel, the time of staying in digit channel when digit channel signal disappear.

- **Scan Analog Hang Time**

After scanning the analog channel, the time of staying in analog channel when analog channel signal disappear.

- **Priority Alert Tone**

The alert tone when scanning the priority channel.

- **Priority Channel**

After setting the priority channel, scan each channel, the radio will re-scan the priority channel automatically.

- **Priority Sample Time**

It means the time of priority channel stay when scan. Priority sample time can be programmed.

Main Function

The time to scan priority channel of staying.

- **Scan Designated TX Channel**

Designate TX channel during scan. When scan, press PTT key, the radio will transmit with designated channel, which can be programmed.

1. Selected : transmit in current channel.
2. Transmit in any channel added from scan list.
3. Last active channel: transmit in voice active channel of last scan, if there is no signal to be scanned, transmit in current channel.

- **Response**

User can transmit through the scanned channel during scanning. If the function is forbidden, the radio will transmit on specified transmission channel.

- **Mark Channel**

When the scanned channel is non-priority channel which is set to receive CTCSS, after scanning priority channel in priority sample time, turn back to receive in the non-priority channel don't need to re-decode. The function of mark channel allow at most 20 times to don't need to re-decode.

- **Private Line Type**

Whether it need to match CTCSS during scanning.

Main Function

Non-priority channel: In the channel that non-priority to scan list member need to match CTCSS.

Priority channel: In the channel that priority 1 or priority 2 to scan list member need to match CTCSS.


Priority and non-priority channel: the all channel to scan list member need to match CTCSS.

Forbidden: the all channel to scan list member don't need to match CTCSS.

● Signal Hold Time

The time of the radio stay in the channel when a channel of analog scan list detects carrier signal. During the time the radio will decode the signal data of analog system. If the decoding information is incorrect, the radio will restore to scan.

● Start/Stop Scan

When start scan, the radio will monitor the channel that added from pre-programmed scan list repeatedly, the LED (red+green) will flash Simultaneously, LCD screen will display .

1. Manual Scan

Program key defined as “scan on/off” , user can turn on or turn off scan through corresponding program key.

2. Automatic Scan

When user select a activated automatic scan channel, the radio will start scan from activated automatic scan channel. When user switch to the inactivated automatic channel channel, scan function will turn off.

Main Function

● Side Key Definition

User can enter “Side key” through the menu “Set→Side key” , then select the function.

Note: the radio only offer some common shortcut function as following:

Alert tone ON/OFF, Emergency mode ON/OFF, High/Low power, Monitor, Repeat/Talkaround, Scan ON/OFF, Encrypt ON/OFF VOX ON/OFF, Switch area, Lone worker ON/OFF, Exit call, flashlight, FM radio.

Emergency Alarm

It send out the emergency signal whenever operations on the current channel or standby mode, and there are three alarm modes on this equipment. I.e., Current channel is 1, Emergency channel is 3.

1. Emergency Alarm: Alarm ON, and press PTT to transmit on the current channel, channel 1.
2. Emergency Alarm/Call: Alarm ON, and press PTT to transmit on the emergency channel, channel 3.
3. Emergency Alarm/Voice to Follow: Alarm ON, and press PTT to transmit on the current emergency channel. After alarm, microphone of this emergency channel is ON and ready for the automatic transmit. The transmitting time is controlled by the activated microphone.

Moreover, there are four alarm types for this function:

1. Disabled: Emergency call is forbidden on this equipment, but it is still available for RX emergency call from other radios.

Main Function

2. Regular: Radio sends out the emergency alarm, as well as the beep prompt and indicator.
3. Silent: Radio sends out the emergency alarm, but without the beep prompt and indicator, neither any RX calls from any other radios.
4. Silent w/ Voice: Radio sends out the emergency alarm, but without the beep prompt and indicator. However, regular RX calls from any other radios is available.
It is programmable to select one of above options as the emergency button.

● Send Emergency Alarm

Emergency alarm is not the audio signal, which activates the prompt on another equipment, the TX contact of emergency channel is group call instead. After activation on the pre-programmed emergency button, the equipment sends prompt.

● Receive Emergency Alarm

1. It prompts for receiving Emergency Calls.

Note: Press the pre-programmed emergency button, the equipment clears out all the receiving emergency prompts and exits from the emergency mode.

● Revert Emergency Alarm

When receiving the Emergency alarm, press PTT to start the revert call.

Main Function

Remote Control

The equipment achieves the call alert, radio check, radio monitor, radio disable and radio enable functions after receiving the command by remote control. There are two methods as following.

Note: Remote Control is only workable to the contacts which belongs to private call.

● Call Alert

After the transmitter radio sends out “Call Alert” , the receiving radio ring when receive “Call Alarm” . then Receiving radio can press PTT key to answer the call.

● Radio Check

The equip send out check command through side key. The RX equipment reply to the TX equipment, the TX equip will alert “Radio detect success” .

● Remote Monitor

The equipment sends out the radio monitor command, the RX equip reply to the TX equip once receive the monitor command and TX equip will alert monitored successfully and starts to monitor.

Note:

1. Target radio needs to activate the “Radio Monitor Decode” function under the Emergency System.
2. The monitoring time is programmable at “the remote monitor duration” option under the Emergency System.

Main Function

• Radio Disable

The equipment sends out the radio disable command, the RX equip receive the command and reply to TX equip and TX equip will alert killed successfully.

Note:

1. Target radio needs to activate the “Radio Disable Decode” function under the Emergency System.
2. User can program the type of disabling the radio: disable、TX limit or TX/RX limit.

• Radio Enable

The equipment sends out the radio enable command, the RX equip receive the command and reply to TX equip and TX equip will alert radio enable successfully.

ARTS

ARTS is a system of “signal exchange” , the CTCSS encoding could ensure the two equipment which with the ARTS function are in a communication range. There will a alert when the equipment exceed the communication range.

ARTS turn on: enter the “general setting” of programming software to turn on the ATRS alert tone, set a CTCSS in analog channel and turn on ARTS. The radio will send/receive a communication distance every 20 seconds, the LED(red) will flash quickly and make a alert tone when there is no legal signal for 2 consecutive minutes.

Main Function

VOX

VOX is workable for the hand-free voice call on the programmed channels.

Note:

1. Program the VOX function ON to the specified channels ahead.
2. VOX Sensitivity: Manually select the VOX levels on menu list or software-general setting-VOX sensitivity.
3. User can turn on/off VOX of the current channel through pre-programmed program key.

Privacy

Privacy function is about the digital encryption for channel voice, in order to protect the privacy and safety. There are 16 groups for basic privacy.

Note:

1. Privacy function needs to be pre-programmed into the digital channel by software.
2. Keys for privacy is editable by 0-9 alpha numbers and A-F letters.
3. The privacy function can be turned on/off through “radio configuration” .

FM Radio

This equipment supports FM radio function, frequency is 65.0-108.0MHz.

Main Function

Turn on FM radio function: Annex→FM Radio to enter and turn on. Press EXIT to exit the FM Radio.

Station Search: Enter FM radio, start automatic searching the FM through side key 1/side key 2.

Note: FM Radio has two automatic scan frequency, when the current frequency band is 65.0-76.0, the automatic scanning only in this frequency range, when the current frequency band is 76.0-108.0, the automatic scanning will in this frequency range only.

Function Description

● Contacts

This is pre-programmed by the One Touch Access or PTT for TX contact. However, if the channel is added to many groups and one of them are working, then press the One Touch Access or PTT will transmit on the missed call last time instead of the new call on current channel.

If you select None option on One Touch Access, then it stops to call on this channel.

● RX Group List

Add all the available contacts onto the group list(if the contact channel is selected the All CALL as call type, it will not be available list adding to the group list). Any operations on the contacts of the group list will be monitored by users, and the missed call will be call back if needed. This is also called group scanning.

If you select None option, then it stops user to receive any group calls except private calls.

Main Function

● Save Mode Receive

It helps save the battery voltage when the radio is free standby. User presses any keys to return the working mode some time later, checking if there are any missed calls. If no calls, radio goes back to save mode. This helps the battery life, but it might delay the radio response.

Set the RX Low Battery Internals on the General Setting of software if the Save Mode Receive is ON.

● Save Preamble

Preamble is adding some characters before sending out the data(like text message, location information, registration, radio checking, private calls etc.). It extends the length of the messaging in order for the RX equipment to miss the former part. Also when the scanning members are added more and more, the preamble function can avoid the former parts of scanning missed. However, the preamble value is larger, the occupying time on the channels are longer. The time for preamble before TX is longer, so it helps the other radios not to miss the RX data during scanning but it makes the TX data less.

● Prompt Tone Disabled

Disable all prompt tone (button tone, call permit tone and CH free prompt tone), except the emergency alarm tone.

● CH Free Prompt Tone

When the voice communication is ended, there is indication tone. If the voice communication is

Main Function

stopped suddenly, there is also indication tone.

Note: Only the digital channels support this function.

- **Automatic Inspection Tone**

The radio will have a prompt tone after power on successfully.

- **Talk Permit Tone**

This tone is prompt whenever you use One Touch Access or PTT to start the TX, helping to remind the users that communication starts.

- **Emergency Alarm Tone Time**

After receiving the emergency alarm, the time that the emergency alarm tone lasts.

- **Strange Number Tone**

In digit mode receiving, the contact list of receiver without transmitter's number, there will be a prompt tone.

- **Reset Tone**

When the hang time of digit channel talkaround group call/private call is up, there is a reset tone on exit.

- **TX Exit Tone**

Loosing PTT key after TX finished, there is a prompt tone.

Main Function

- **Receive Private Call Tone**

When receiving the call of specific ID in digit channel, there will be a prompt tone.

- **Private Call Ring**

The ring type of prompt tone when digit channel receiving the specific ID.

- **Lone Worker Response Timer**

The timer is a part of lone worker function. It's used for deciding the waiting time of sending prompt again after the last user activity.

- **Lone Worker Reminder Timer**

The timer is a part of lone worker function. It's used for deciding the waiting time of sending emergency alarm again after the response timer finishing the timing.

- **TX Limit Fast Key**

When analogue channel limited TX, user can press PTT key twice to transmit in one second.

- **Disable Type**

Set the disable type of digit or analog channel.

TX limit: forbid TX after disabling.

TX/RX limit: forbid TX/RX after disabling.

Main Function

Disable: forbid TX/RX and cannot use the radio after disabling.

Always: Press One Touch Access or PTT to directly transmit, it is called the impolite channel visit.

Channel Free: Radio checks if the channel is free for calling before transmitting, it is called the polite channel visit.

Compatible CTCSS/DCS: Radio checks if the CTCSS/DCS is compatible before transmitting. (Only used in Analog channels)

Compatible Color Code: Radio checks if the Color Code is compatible before transmitting. (Only used in Digital channels), it is called the polite digital system of channel visit.

- **Color Code**

It is programmable one color code to the specified channel, totally 15 codes. Some channels are using the same or different color codes. The repeater is using one color code only. Single color code is identifying one system, different color codes are identifying different systems, which helps the radios to use different systems. The radio scans all the channels with different color codes, and avoid the channel operations without the compatible color codes. The repeater which is using the same frequency is supportable to use different color codes. The administrator for the frequency spectrum hopes to use the different color codes to different users with the license, to share the channels as the part of agreement.

Main Function

- **TOT**

TOT is the transmitting time stay for radios, in order to avoid that some channel is occupied for some communication for too long time. User will make the shorter TOT on some busy channels.

- **TOT Rekey Delay**

This function is the next transmitting time after the stop by TOT.

- **RX only**

The channels are programmed only RX available, could not TX.

- **Talkaround**

The equipment will switch to direct mode for communication if the repeater is out of working or out of the range.

- **Group Call/Private Call Hang Time**

User can set the hang time for receiving ID of the former group call or private call, and directly press PTT to call back.

- **Private Call Confirmed**

It confirms the private calls for the TX contacts on the digital channel. It starts transmitting if the private call is confirmed OK, while it prompts failed transmitting if not.

Main Function

- **Data Call Confirmed**

It confirms the data call on the current digital channel, i.e. it needs to confirm back after the radios sends out the text message by private call.

- **DCDM Switch**

It supports the data transmission for two channels on same frequency, and both of them are using the 12.5kHz bandwidth. The radios in the same group should be using the same time slot, so the time slot 1 will not interrupt the time slot 2. The radio needs to divide and track the structure of time slot to work normally. The radio as the regulator for the time slot is unique, and other radios should adjust the clock to make synchronization with the regulator.

- **TX Interrupt Frequency**

TX the interrupted signals before regular TX.

If interrupt successes, then it starts the voice communication. If interrupt failed, then it prompt failed.

- **Allow Interrupt**

It allows the TX interrupt from other radios during transmitting.

- **Repeater Time Slot**

It uses the TDMA technology to divide one 12.5kHz channel into two, and both of them separately

29 carriers one call when working in the repeater mode.

Main Function

- **TX Wakeup Message Limit**

It is the times settings for continuing transmitting the synchronization information on the digital channels.

- **Remote Monitor Time**

Set the remote monitor time of digit channel to the target radio.

- **TX Sync Wakeup TOT**

It is the time settings waiting for the ACK to response to the sending information which is synchronization with the digital channel.

CTCSS/DCS Decode and Encode

It supports CTCSS/DCS decode and encode for analog channels to prevent interrupt, 50 groups of CTCSS and 105 groups of DCS selectable.

DTMF System

It supports to use the DTMF for modulation, and user should program the settings to analog channels ahead by software. And here are the settings as following each.

DTMF Side Tone: It sends the side tone of DTMF if sending the DTMF codes.

Main Function

PTT ID: The ways of sending out the DTMF if press PTT or release PTT, four options: None, Pre Only, Post Only and Pre& Post.

PTT ID Up Encode: Press PTT then send out the DTMF codes.

PTT ID Down Encode: Release PTT then send out the DTMF codes.

Personal ID: Set personal ID. Send the other ID directly to make private call.

Disable Code: Set the radio disabled code, the radio will be disabled when receiving the disable code.

Wakeup Code: Set the radio wakeup code, the disabled radio will restore the normal working mode when receiving the wakeup code.

Separator sign: when the radio need to display ANI code, the way of sending code is Counterpart ID + Separator sign + Radio ID.

Group Call Code: user can use DTMF character “A” 、 “B” 、 “C” 、 “D” 、 “*” or “#” to set a group call code “Universal Character” . If the radio receive the effective ID, one or all codes among it are replaced by the universal character, the radio will decode. “universal character” is useful in group call, the station that called by group call cannot reply automatically.

Group Call Example:

Group Call Code C

The Personal ID of four radios are: A:123 B:223 C:235 D:355

If the Base Call use “C23” , then A and B can receive the group call.

If the Base Call use “CC5” , then C and D can receive the group call.

If the Base Call use “CCC” , then all station can receive the group call.

Main Function

Decoding Response: when receiving the matched ID code, the radio will response.

No: the radio don't response.

Remind: the radio make a prompt tone.

Reply: the radio wirelessly transmits and modulates the prompt tone.

Remind and Reply: the radio makes a prompt tone and wirelessly transmits and modulates the prompt tone.

Disable/Activate Decoding: select turn on/off Disable and Activate function, when turning off, it's useless to decode.

Auto Reset Time: If there is no communication within the time after the DTMF decoding, the DTMF decoder will reset and mute the speaker.

First Digit: The delay time for sending the first digit of DTMF codes after PTT.

First Digit Time: The keep time for sending the first digit of DTMF codes after PTT.

Digit Time: The time for sending the DTMF codes which are included the Digits.

DTMF rate: “DTMF rate” makes a fixed time interval among each digit to reduce the wrong decoding. User can select 5、6、10 digits each second.

• DTMF Contacts

The equipment supports 32 groups, each group is max supporting 16 codes. This is used for sending the DTMF codes of analog channels by One Touch Access.

Simple Troubleshooting

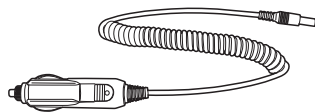
Trouble	Reason	Solution
Radio could not be powered on.	Battery is not well installed.	Install the battery well again.
	Battery voltage is used up.	Re-charge the battery or change a new battery.
	Battery is dirty or broken then failed contact.	Clear the battery contact.
Call is failed.	Signal is poor.	Make sure the radio is working in the range.
Audio is not clear.	Signal is poor.	Make sure the contacts are working in the range.
Keys are not workable.	Keypad is locked.	Unlock the keypad.
	Keypad is stuck.	Resume the radio.
Rx audio is small, interrupted or mute.	Volume is low.	Make the higher volume.
	Antenna is loose or install incorrectly.	Power off and install the antenna correctly.
	Microphone is stuck or broken.	Clear up the microphone or change a new one.

Simple Troubleshooting

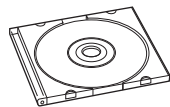
Radio could not contact with other members in the group.	Frequencies or settings are not compatible.	Make the settings compatible.
	Settings on the digital channels are wrong.	Make the settings compatible especially the digital channels.
	The communication range is too far.	Make sure that the all group are working in the range.
	Signal is poor.	Make sure that the all group are working in the range.
Big noise.	Interrupts from other users in the same frequency.	Change to other channels or adjust the squelch level.
	Signaling is not programmed well.	Program the compatible signaling for all the members in the same group.
	Signal is poor.	Make sure that the all group are working in the range.
	Location is poor for communication, like high building, basement.	Change to the wide surroundings.
	Interrupts by other electronics equipment.	Avoid the electronics equipment.

Please contact the local dealer or factory to get more warranty supports if above steps still not solved the problems.

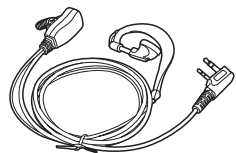
Optional Accessories



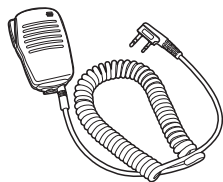
Car charger



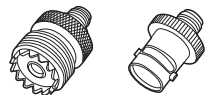
Programming CD



Headset



MIC/Speaker



Antenna adapter

Disclaimer

We are working hardest to make the manual perfect, but there is still emission and printing errors, our company will not have any responsibility.

For the technical development, all the above specification is subject to updated without prior notice. Anyone cannot copy, modify, translate and distribute the manual without written authorization of .