AnyTone®

AnyTone®

D868UV

Instruction Manual

THANK YOU!

Thank you very much for choosing our **AnyTone** Dual Band DMR two way radio. This simple to use radio adopts the latest advances in technology, providing reliable communication in today's demanding communication environment.

This radio have both DMR digital and analog communication, introduces innovative DMR digital processing system to achieve SMS, high-audio quality and digital encryption. It boasts novelty, best stability, great reliability, nice timbre and long distance communication as well as fashionable design and smooth exterior lines. D868UV has Text message, recording, voice message, digital encryption, emergency alarm, Man down alarm, lone work, GPS, Vibration and Analog DTMF, 2TONE, 5TONE, CTCSS/DCS encode/decode functions.

NOTE:

When programming the radio, read the factory initial data first, then rewrite the frequency and signaling etc., otherwise errors may occur because of different frequency band etc.

You can use the programming cable to program the frequency, channel type, power etc. which are comply with the FCC certification.

You can't change RF parameter（eg. RF power , Fre Range） by programming software.

Notice to the User

1. Keep the radio and accessories away from children.
2. Please do not try to open or modify the radio without permission, non-professionals process may cause damage.
3. Please use assorted battery and charger to avoid damages.
4. Please use assorted antenna to ensure the communication distance.
5. Please do not expose the radio to direct sunlight for a long time nor place the radio near any heat devices.
6. Please do not put the radio in extremely dusty or humid areas.
7. Do not use harsh chemicals, cleaning solvents to clean the transceiver.
8. Do not transmit without antenna.
9. When using this radio, we recommend transmitting for 1 minute then receiving for 4 minutes. Continuous transmitting for long time or working in high power will heat the back of the radio. Do not place the radio's hot side close to any surface of plastic.
10. If any abnormal odor or smoke detected coming from the radio, cut off the power and take off the battery pack. Then contact local AnyTone dealers.

ATTENTION:
All tips above apply to accessories of your AnyTone two way radio. If any device can not work normally, please contact local AnyTone dealers.
If you use any accessories made by other companies, AnyTone company does not guarantee the operability and safety of the radio.

Unpacking and Checking the Equipment

Unpack the radio carefully. We recommend that you identify the items listed in the following table before discarding the packing materials. If any items are missing or have been damaged during shipment, please contact the carrier or the dealers immediately.

SAFETY TRAINING INFORMATION

our Qixiang Electron Science& Technology Co., Ltd radio generators RF electromagnetic during transmit mode.This radio is designed for and classified as"Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards,and the ways To Minimize Such hazards. This radio is NOT intended for use by the"General Population" in an uncontrolled environment. This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only".Inaddition, our Qixiang Electron Science& Technology Co., Ltd radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

--IEEE Std. 1528:2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

--American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

--American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields- RF and Microwave.

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 asÿsure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, Qixiang Electron Science& Technology Co., Ltd radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

Attention:

This radio complieswith IEEE and ICNIRP exposure limits for occupational/controlled RF exposure emvironment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only. An appropriate warning lable is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original acessories (belt clip).   Do not use this device when antenna shows obvious damages

This product is compliance to FCC RF Exposure requirements and refers to FCC website https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm search for FCC ID:T4KD868UV to gain further information include SAR Values.

Supplied Accessories

Item	Number	Quantity
Antenna		1
Li-ion Battery Pack		1
Battery Charger		1
AC Adaptor		1
Belt Clip		1
Hand Strap		1
Instruction Manual		1

Standard Accessories
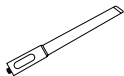
Antenna*¹   Li-ion Battery Pack   Charger   AC Adaptor   Belt Clip

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* Note: For frequency band of antenna, please refer to label indicated in the bottom of the antenna.
* Note: Car Charger and QBC−44L Charger should be used together.

Optional Accessories

USB Programming   USB Programming Cable   Earphone   Li-ion Battery Pack

Programming Software   Car Charger

Charging Operation

The battery pack is not charged at the factory; please charge it before use.

Charging the battery pack for the first time after purchase or extended storage (more than 2 months) may not bring the battery pack to its normal operating capacity. After fully charging/discharging cycle for two or three times, the operating capacity will reach its best performance. The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack.

Charger Applied

Please use the specific charger appointed by our company. Other models may cause explosion and personal injury. After installing the battery pack, if the radio displays low battery with red flashing lamp or voice prompt, please charge the battery.

Notice for Charging Battery

1. Do not short the battery terminals or throw the battery into fire. Never attempt to remove the casing from the battery pack, we show no responsibility on any results caused by modifying freely without permission of our factory.
2. The ambient temperature should be between $5°C \sim 40°C$ while charging is in process. Charging outside this range may not fully charge the battery.
3. Please turn off the radio before inserting it into the charger. Otherwise, it will interfere with correct charging.
4. To avoid interfering the charging, please do not cut off the power or take out the battery during charging.

5. Do not recharge the battery pack if it is already fully charged. This may shorten the life of the battery pack or damage the battery pack.
6. Do not charge the battery or the radio if it is damp. Dry it before charging to avoid danger.

WARNING: When keys, ornamental chain or other electric metals contact the battery terminal, the battery may cause damage or hurt bodies. If the battery terminal short circuit it will generate a lot of heat. Take care when carrying and using the battery. Remember to put the battery or radio into insulated container. Do not put it into metal container.

How to Charge

1. Plug the AC adaptor into the AC outlet, and then plug the cable of the AC adaptor into the DC jack located on the back of the charger. The indicator lights orange(1s) and then goes out---waits to charge.
2. Plug the battery or the radio into the charger. Make sure the battery terminals are in contact with charging terminals well. The indicator turns into twinkling red--- Pre-charging begins.
3. After pre-charging for about 5 minutes, the red indicator will stop twinkling--- charging begins.
4. It takes approximately 2 hours to fully charge the battery. When the lamp lights green, the charging is finished. Remove the battery or the radio unit with battery from socket.
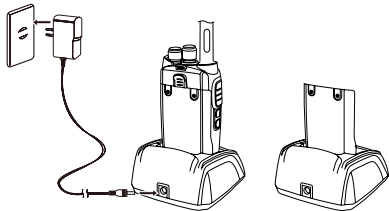
NOTE: when charging a power-on radio equipped with battery, the indicating lamp will not turn into green to show the fully charged status. Only when the transceiver is switched off, the lamp can indicate normally. The radio consumers energy when it is power-on, and the charger can not detect the voltage when the battery has been fully charged. So the charger will charge battery in constant voltage and fail to indicate correctly whether the battery has been fully charged.

5. Charging Process

Charging Status	Indicator Status
Standby (Self-examine lights orange 1second when power on)	None
Pre-charging (Pre-charging stage)	Red light twinkles for about 5 minutes
Charging (Charge in a constant current)	Lights red for about 5 hours
Fully charged (Charge in a constant voltage)	Lights green

6. LED Indicator:

STATUS	Self-Examine When Power on	No Battery	Pre-charging	Charge Normally	Fully Charged	Trouble
LED	Orange (for 1 second)	None	Red Light Twinkles for 5 Minutes	Red	Green	Red twinkles for a long time

NOTE: Trouble means battery heating, battery short-circuit or charger short-circuit.

Normal Charging Tips

1. **Self- Examination:** When charging, orange light twinkles for 1 second and goes out, which means the charger has passed it self-examination and it can charge the battery normally. If the light remains orange or the red light twinkles, it means the charger can not pass it self-examination or charge the battery.

2. **Trickle Pre-Charging:** If red light twinkles when battery is inserted into the charger, it means the remnant voltage is low and the charger is trickle-charging when the battery (Pre-Charging Status). The charger will automatically turn into normal charging when the battery reaches a certain electric quantity, and if the red light stops twinkling, it means the remnant voltage meets s certain electric quantity, the charger will charge the battery normally.

> **NOTE: Trickle charging (Pre–Charging Status) time can not beyond 30 minutes. If the indicating lamp still twinkles after 30–minute trickle–charging, it means that the charger can not charge the battery. Please check whether the battery or charger is damaged.**

How to Store the Battery

1. If the battery needs to be stored, keep it in status of 80% discharged.
2. It should be kept in low temperature and dry environment.
3. Keep it away from hot places and direct sunlight.

WARNING:
1. Do not short circuit battery terminals.
2. Never attempt to remove the casing from the battery pack.
3. Never assemble the battery in dangerous surroundings, spark may cause explosion.
4. Do not put the battery in hot environment or throw it into fire, it may cause explosion.

Installing / Removing the Battery

1. Match the two grooves of the battery pack with the corresponding guides on the back of the radio and then push it.
2. To remove the battery pack, slide up the release latch and remove the pack away from the transceiver.
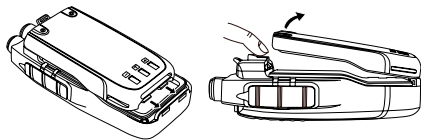
Installing / Removing the Antenna

■ Installing the Antenna:

Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

■ Removing the Antenna:

Turn the antenna anticlockwise to remove it.

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We only do best radio!
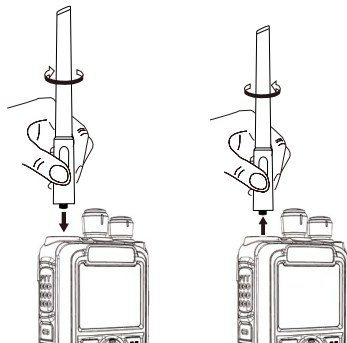
Installing / Removing the Belt Clip

■ Installing the Belt Clip:

Place the belt clip to the corresponding grooves on the back of the radio, and then clockwise screw it.

■ Removing the Belt Clip:

Anticlockwise turn the screws to remove the belt clip.

Installing the Additional Speaker/ Microphone (Optional)

Unveil the MIC-SP jack cover and then insert the Speaker/Microphone plug into MIC-Sp jack.

Radio Overview
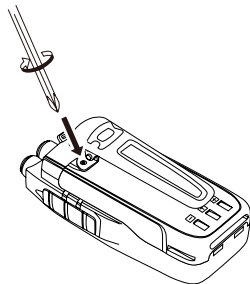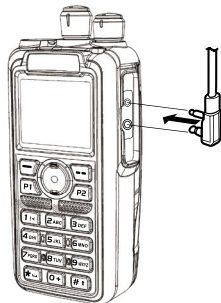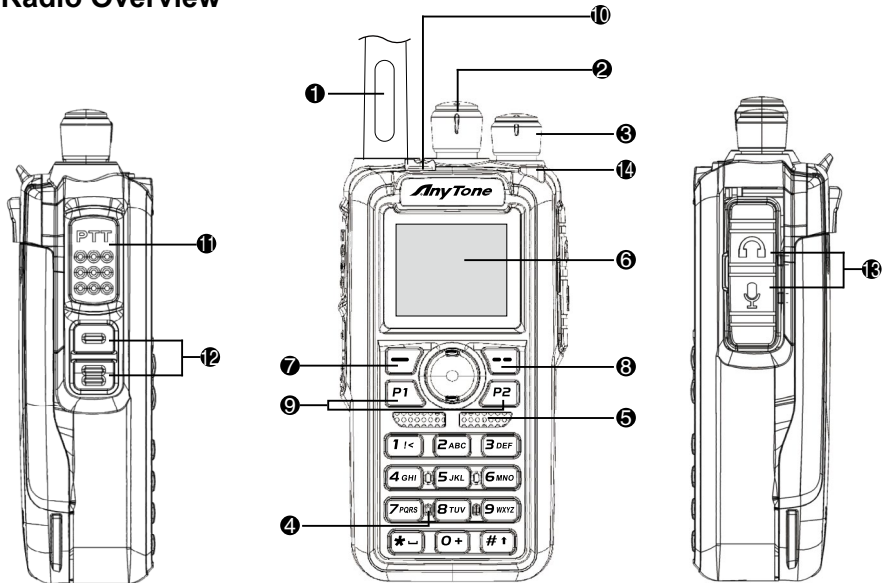
❶ Antenna

❷ Channel Switch

❸ POWER/VOLUME Switch

Turn clockwise to switch on the radio

Turn counterclockwise till a click is heard to switch off the radio.

Rotate to adjust the volume after turning on the radio.

❹ MIC Input

Please keep your mouth about 10cm away from the microphone to achieve the best voice quality

❺ Speaker

❻ LCD

Display the frequency/channel information, operation and status.

❼ Func key

Press to enter function menu set up;

Program the hot keys in PC software, press func, then press the hot key to perform the programmed function.

❽ Exit Key

In standby, press the key to enter the Contact list.

In menu, press the key to return the last menu.

❾ P1 key/ P2 key

Programmable in PC software for different functions

❿ Emergency Alarm Key

Programmable in PC software for other functions.

⓫ PTT (Push-To-Talk) Button

To make a call, press and hold the PTT button, then speak into the microphone. Release the button

to receive the signals.

⑫ [PF1]/[PF2] Key
   Programmable in PC software for different functions.

⑬ Speaker/Microphone Jacks. PC program connector

⑭ Status Indicator
   Indicate the different working status

○

Programmed Key

In PC software – Public - Optional Setting - Key function, it is able to set different functions for PF1, PF2, PF3, P1, P2 keys.

OFF	No Function
Voltage	Check the current battery capacity voltage
Power	Switch the power between super high, high, middle and low power.
Relay	Switch between talk around and repeater mode
Invert	Turn on/off the frequency reverse function.
Digital Encryption	Choose the encryption group
Call	In Analog channel, send the DTMF/5TONE/2TONE encode.
	This function is only valid for analog channel.
TBST	In Analog channel, send the tone pulse frequency signal to active the repeater.
VOX	Set up the VOX level
VFO/MR	Switch between VFO mode and memory channel mode.
Sub PTT	Sub channel PTT, press to start the call on sub channel
Scan	Scan on/off
FM Radio	FM radio on/off
Alarm	Long press the key to start alarm, short press again to exit the alarm.
Record switch	Enable/disable the recording function

Record	Start/stop recording. When stop recording, the radio will remind repeat or send the record.
SMS	In digital channel, press to enter into messages
Dial	Start the manually dial
GPS	Check the GPS position information
Monitor	Monitor the weak signal or the signal with unmatched ID.
Main channel switch	Choose channel A or channel B as the main channel
Hot key 1~6	Press the key to perform the programmed function in hot key setup
Alone	Turn on/off the work alone function.

Default function

PF1 (The radio key below PTT) – battery Voltage

PF2 (The radio key 2 below PTT) – Monitor

PF3 (Orange Alarm key) –Alarm

P1 key – Main channel Switch

P2 key – VFO/MR Switch

Hot Key

In PC software – Public – Hot key, it is able to set different functions for hot key 1~6 and Func+ number key. Details please refer to the PC software.

Call	Analog	Should edit the analog quick call firstly, then choose analog in the hot key set. Press the key to transmit 2Tone/5Tone/DTMF to start the analog quick call.
	Digital	It allows choose a contact from the digital contact list, press the key to switch the channel to the contact temporary. It will switch back to the original contact after the group/personal call hold time.

	SMS	Quick access to Messages in the menu
	New Msg	Quick access to New Msg in the Menu - Messages
	Quick Text	Quick access to Quick Text in the Menu - Messages
	Inbox	Quick access to Inbox in the Menu - Messages
	Outbox	Quick access to Out box in the Menu - Messages
	Contact list	Quick access to Contact list in the Menu - Contacts
Menu	Manual dial	Quick access to Manual Dial in the Menu - Contacts
	Call Log	Quick access to Call Log in the Menu
	Dialed Calls	Quick access to Dialed Calls in the Menu - Call Log
	Answered Calls	Quick access to Answered Calls in the Menu - Call Log
	Missed Calls	Quick access to Missed Calls in the Menu - Call Log
	Zone	Quick access to Zone in the Menu
	Radio set	Quick access to Radio Set in the Menu - Settings

Func+ number key operation:

Press func key until the LCD display "Next Please Press Dial Key", press the number key, it will perform the programmed function.

Power on the radio

Turn on the radio by turning the Power/Volume switch clockwise till a click is heard, LCD displays the start up message, you will hear a beep after 7seconds.

Adjust Volume

Rotate the Power/Volume knob to adjust the volume. Turn clockwise to increase the volume and counterclockwise to decrease the volume, LCD will display the volume status during adjusting.

Battery voltage Inquiry

Press PF1 key to check the current battery capacity, press the key again to return.

Main band/Sub band switch

Press [P1] key to switch between main band and sub band, the channel with big character is the main band.

VFO/Channel switch

Press [P2] key to switch between VFO and channel.

Note: If the Channel name set up to CH, this function is invalid.

Set up VFO frequency

Turn the radio to VFO mode, press P1 key to switch the channel to main band, the VFO frequency can only be set up when the channel is in main band.

Operation 1: Input the VFO frequency directly by keyboard.

Operation 2: Turn the channel switch to adjust the VFO frequency in step.

Select a Zone

Operation 1: Press UP/DOWN directly to switch the zone, the LCD will display the selected zone number or name.

Operation 2:

1.Press Menu, press UP/DOWN to Zone

2.Press Select to enter Zone, press UP/DOWN to a Zone

3.Press Select to enter a Zone, press Option

Edit Name: Input the name, press confirm, it will exit the Edit name and stay at Save, press select to save the name, it will remind "Saved".

Select Zone: Press UP/DOWN to "Select Zone", press select, the LCD will display the selected zone number or name.

Select a Channel

Operation 1: Turn the channel switch to select a channel.

Operation 2: Press P2 key to switch the radio to Channel mode, input the channel numbers by keyboard. For example, if you want switch to channel 99, input 0,0,9,9 total 4numbers, it will switch to channel 99.

Receiving and Responding to a Radio Call

When radio in digital channel, it can receive and respond to a call with same frequency/color code/ slot.

When receiving a call:

1.If the radio program with call tips in the digital contact, when receive the call, the radio will ring or vibrate shortly.

2.The light blue LED lights.

3.The left top corner of LCD shows the RSSI icon, DMR ID/name/city/state/country/call type and incoming icon will display on LCD.

4.When the call is end, it will remind "Call end", you can press PTT to respond the call.

Making a Call

You can choose a target radio by 3 methods.

Operation 1: from the Channel switch

Turn the channel switch to choose a programmed channel.

Operation 2: from the Contact list

1.Turn the channel switch to choose a programmed channel;

2.Press exit key to enter Contact List, press UP/DOWN key to choose a contact.

Operation 3: from the dialing

1.Turn the channel switch to choose a programmed channel

2.Press Menu key to Contacts, press select to enter Contacts.

3.Press UP/DOWN key to Manual Dial, press Select

4.Input the ID number by keypad, press # key to switch group ID or Private DMR ID.

Hold the radio vertical 2.5~5cm from your mouth, press PTT key to start the call, the red LED lights, the receiver ID/name/city/state/country/call type and call out icon will display on LCD.

Release PTT key to receive the call.

Temporary Monitor

In standby, press and hold the PF2 key to enter Temporary Monitor. When receiving matched carrier but the signaling/ ID is unmatched or the signal is too weak, this function allows monitor the weak signal and signal with unmatched ID.

Release the PF2 key to shut off speaker and return to standby.

Note: In PC software, Public – Optional Setting – Other – Mon Key Function should be set up to Squelch Off Momentary.

Monitor

In standby, press the PF2 key to enter Monitor. When receiving matched carrier but the signaling/ ID is unmatched or the signal is too weak, this function allows monitor the weak signal and signal with unmatched ID.

Press the PF2 key again to shut off speaker and return to standby.

Note: In PC software, Public – Optional Setting – Other – Mon Key Function should be set up to Squelch Off.

Advanced features for Private Call

Operation 1: Access from Contact list

1.Press Exit key to enter Contact list, press UP/DOWN key to a private call ID name.

2.Press Select to View Contact, press Select to see the contact information.

3.Press Option to access the advanced features.

Operation 2: Access from Manual Dial

1.Press Menu key to Contacts, press UP/DOWN key to Manual Dial

2.Press Select to enter Manual Dial

3.Input the Private ID, press Option to access the advanced features.

Advanced features

1.Call Alert

Select Call Alert, it will send out a call alert, the target radio will sound beep or vibrate when receive the call alert, it will return a success call or failed call message to the transmit radio.

2.Remote Monitor

Select Remote Monitor, it will send out a signaling, the target radio will turn on microphone and transmit when receive the signaling, it will send back the voice to the transmit radio. With this feature you can monitor the audible activity surrounding the target radio remotely.

3.Get GPS info

Select Get GPS info, it will send out a signaling, the target radio will start the GPS positioning and

send a message of GPS position to the transmit radio.

4.Check Radio

Select Check Radio, it will send out a radio check, the target radio will send back a message if it is available or not available to the transmit radio. With this feature, you can determine if another radio is active in the system.

5.Kill

Select Kill, it will send out a kill signaling, the target radio will be killed (No display, no operation) when receive the signaling, it will send back a kill successful message to the transmit radio.

6.Wake

Select Wake, it will send out a wake signaling to the killed radio, the target radio will return to standby when receive this signaling and send back a Wake successful message to the transmit radio.

GPS Positioning Function

Turn on GPS

1.Press Menu to enter main Menu, press UP/DOWN key to Settings

2.Select Radio Set, press UP/DOWN key to GPS Set

3.Select GPS Set, press UP/DOWN key to GPS On

4.Select GPS On.

Check the GPS Information
Operation1: Check GPS info from Menu
Press Menu key to enter Main Menu, press UP/DOWN key to GPS info, press select to check the GPS info.
Operation1: Check GPS info from programmed key
In PC software, Public – Optional Setting – Key function, program a key as GPS, press the programmed key to check the GPS info.

Note: If the GPS is not positioning, it will display "No Fixed Position", the GPS icon is grey color. Put the radio at open window or outdoor, it will take minutes to connect GPS.

Send GPS information
1.When the GPS is positioning successfully, the GPS icon is red color. Follow the above step to check the GPS info, press edit key to Text edit.
2.Press Confirm, it will display Send or Save. If choose Save, GPS info will be saved to draft message.
3.Choose Send, it will display Contact list or Manual Dial.
4.Select Contact list to choose a contact, press select to send the GPS info. Or
5.Select Manual Dial, input the DMR ID, press # key to switch group ID or private ID, press select to send the GPS info.

Man Down Alarm

1. Press Menu to enter main Menu, press UP/DOWN key to Settings.
2. Select Radio Set, press UP/DOWN key to 25 Man Down.
3. Select Man Down On to turn on the function.

When the function is on, the radio will start alarm if the radio is falling to the ground. Raise the radio to stop the alarm.

Note: When GPS is on and positioning successfully, it will auto send out the GPS information when radio starts the alarm.

Recording

Turn on/ off the recording

1. Press Menu to enter main Menu, press UP/DOWN key to Record.
2. Select Record Switch, select on or off to turn on or off the Record.

When the function is on, the radio will auto record the talking during communication.

Play and Send the Record

Play the Record

1. Press Menu to enter main Menu, press UP/DOWN key to Record.
2. Select Record List to enter Record list, select a Record list to enter the Record file

3. Select a Record to see the detail information

4. Select Record Play to play the record.

Send the Record

1. Press Menu to enter main Menu, press UP/DOWN key to Record.

2. Select Record List to enter Record list, select a Record list to enter the Record file

3. Select a Record to see the detail information

4. Select Record Send, it will display Contact list or Manual Dial

5. Select Contact list to choose a contact, press select to send the Record. Or

6. Select Manual Dial, input the DMR ID, press # key to switch group ID or private ID, press select to send the Record.

Recording Manually

In PC software, Public – Optional Setting – Key function, program a key as Record

1. Press the programmed Record key, the radio will start the recording, speak into microphone

2. Press the programmed Record key again to stop the recording, radio will display Record Play or Record Send.

3. Select Record Play, radio will play the record. Or

4. Select Record Send, radio will display Contact list or Manual Dial

5. Select Contact list to choose a contact, press select to send the Record. Or

6. Select Manual Dial, input the DMR ID, press # key to switch group ID or private ID, press select to send the Record.

Main Menu

Contacts

Contacts List: Will display the digital contact list which had been programmed in PC software.

New Contact: Allows create a new digital contact

Manual Dial : Input the group ID or private ID to access a contact quickly.

Messages

New Msg: Create a new message and send to a contact.

InBox: All the received messages, allow forward or delete the message.

OutBox: All the sent messages, allow resend, forward or delete the message.

Quick Text: Pre-saved messages, allow send, edit or delete the message.

Draft: Draft messages, allow send, edit or delete the message.

Call Log

Dialed: All the dialed calls, allow delete the call record or save the ID as a new contact.

Answered: All the answered calls, allow delete the call record or save the ID as a new contact.

Missed: All the missed calls, allow delete the call record or save the ID as a new contact.

Scan List

In PC software – Public – Scan list, it allows save 250 scan lists, program the required scan lists and write into radio.

Switch the radio to channel mode, the scan list is only valid in channel mode.

Select a Scan list as current scan list, you can also reset the priority channel 1 and priority channel 2 in the scan list.

Settings
Radio Set
1.Beep
Beep On: The radio will beep when you press the keypad
Beep Off: No beep when you press the keypad.
2.Back Light
LCD backlight level 1~5 adjustable
3.Light Time
LCD backlight time 5~10seconds, or always light on.
4.Ch. Name
CH name: Radio will work at channel mode and display the channel name, the programmed VFO/MR key is invalid.
Frequency: Radio will work at VFO mode and display frequency, the programmed VFO/MR key is valid for switching the VFO and Memory channel.
5.Key Lock
Manual Lock: Long press * key to lock the keypad. Press Func, then press the * key to unlock the

keypad.

Auto Lock: Radio will auto lock the keypad when standby for a while. Press Func, then press the * key to unlock the keypad

6.Power Off

Allow to set up auto power off when standby for a period, 10minutes, 30minutes, 1hour or 2 hours for option.

Off: Turn off the function.

7.TX Timer

30S-240S: The TX is limited in the set time, when reach the time, radio will auto stop transmit.

OFF: Turn off the TOT, there is no limit for the transmitting.

8.Language

Choose the Chinese or English.

9.Intro Display

Picture: The radio will display picture when power on.

Character: The radio will display the characters set up in PC software when power on.

10.Main Ch

Channel A: The up side channel will be set to main channel.

Channel B: The bottom side channel will be set to main channel.

11.Sub Ch

Sub Channel On: Turn off the sub channel, radio only display the main channel.

Sub Channel Off: Turn on the sub channel, radio will display main channel and sub channel.

12.Msg Note

Different prompt options when receive a new message.

13.Call Ring

Different prompt options when receive a new call.

14.Freq Step

2.5K,5K,6.25K,10K,12.5K,20K,25K,30K,50K, total 9steps for optional.

15.SQ level

Adjust the squelch level to receive signal with different signal strength, total 5levels for optional. This function is only valid for analog channel.

16.Power Save

Turn on the function to extend the battery life.

17.TBST Sel

TBST frequency is used for activate some dormant repeaters, 1000Hz,1450Hz,1750Hz,2100Hz total 4 options.

18.VOX

Enable the VOX, you can speak into microphone to start transmitting instead of pressing the PTT key. Total 3 levels for optional.

19.VOX Delay

When the VOX is enabled, set up the VOX delay will help to extend the transmit time and avoid the

talking lost. 0.5s-3s, total 26 levels for optional.

20.Scan Mod

SCM TO: When scan with a signal, stay at the channel 5s and resume scan

SCM CO: When scan with a signal, stay at the channel until the signal disappear, 2s later resume scan.

SCM SE: When scan with a signal, exit the scan.

This function is only valid for the VFO scan.

21.Mic Level

Allow adjust the Microphone gain, level 1 is lowest, level 5 is highest.

22.DTMF Speed

Suitable DTMF encode speed will help the receiver decode successfully, 50~500ms for optional.

23.FM Radio

Turn on or off the FM radio.

24.FM Radio Moni

Radio Mon On: When FM radio is on, you can still receive or transmit on the channel.

Radio Mon Off: When FM radio is on, no allow to receive or transmit.

26.Start Up Pwd

On: Set up the password for start up. You need to input the password to power on the radio.

Off: No password is required for start up.

27-31 Key PF1, PF2,PF3, P1,P2

You can program the key as different functions.

33.Time Zone

Set up the time zone of your location.

32.Date Time

Time Check: Allow set up the date and time manually. Use the up-down key to set the current year. Move to the month by pushing the P1 key. Set the month, and use the P1 key to move forward each step. Once done, click the Menu key to save the date and time.

GPS Check: When GPS is positioning successfully, enter this menu, select GPS check to do the date & time correction automatically

Chan Set

1.Channel Type

A-Analog : Set up to analog channel

D- Digital : Set up to digital channel

A+D TX A: Mixed analog, allow receive analog and digital signal, TX is analog.

D+A TX D: Mixed digital, allow receive analog and digital signal, TX is digital.

2.TCDT – for analog channel only

Set up the CTCSS/DCS code for the TX.

3.RCDT – for analog channel only

Set up the CTCSS/DCS code for the RX.

4.RTCDT – for analog channel only

Set up the CTCSS/DCS code for both TX and RX

CTCSS code: 62.5Hz~254.1Hz, total 51groups

DCS code: 000N~7771, total 1024groups

5.TX Power

Set up the TX power for current channel

6.Tone Dec – for analog channel only

Allow set up DTMF/5TONE/2TONE encode and decode for the analog channel.

7.Signal – for analog channel only

When the analog channel set up both CTCSS/DCS decode and optional signaling, you can set up the RX condition in this menu.

SQ: You can hear the call once the channel receive matched carrier.

CDT: You can hear the call when the channel receive matched CTCSS/DCS signal

TONE: You can hear the call when the channel receive matched signaling.

C&T: You can hear the call when the channel receive matched CTCSS/DCS and matched signaling.

C|T: You can hear the call when the channel receive matched CTCSS/DCS or matched signaling.

8.Band Width – for analog channel only

Choose wide band or narrow band for the channel.

9.REV– for analog channel only

When this function is enabled, the RX frequency, TX frequency and CTCSS/DCS encode/decode will be reversed.

10.RX Freq

Input the RX frequency by keypad, click menu key to save, press P2 key to return.

11.TX Freq

Input the TX frequency by keypad, click menu key to save, press P2 key to return.

12.Talk Around

When the TX and RX radio both set up with Talk Around on, they can communicate directly without repeater. The analog channel will use the RX frequency as TX/RX frequency, the RX CTCSS/DCS decode as TX CTCSS/DCS encode.

13.Name

Set up a name for the channel, this function is only valid in channel mode.

14.Busy Lock – for analog channel only

OFF: Always allow transmit

RL: Not allow transmit when receive matched carrier but unmatched CTCSS/DCS.

BU: Not allow transmit when receive matched carrier.

15.Tx Admit

TX ON: Allow transmit on the current channel.

TX OFF: Not allow transmit on the current channel.

16.Radio Id

In Analog channel, it will show the radio self ID which is programmed in PC software – Analog –

Analog Address Book – Number.

In Digital channel, it will show the DMR ID which must be programmed firstly in PC software – Digital – DMR ID list- DMR ID. Allow edit and select an ID for the channel, each channel allow one ID.

17.DTMF Enc – for analog channel only

Set a DTMF ID as default call ID for current channel.

Press PTT key to transmit the chose DTMF ID.

Edit the DTMF ID in menu or in PC program software.

18.2Tone Enc– for analog channel only

Set a 2Tone as default call ID for current channel.

Press PTT key to transmit the chose 2Tone.

Edit the 2Tone in PC program software firstly.

19.5Tone Enc– for analog channel only

Set a 5Tone as default call ID for current channel.

Press PTT key to transmit the chose 5Tone.

Edit the 5Tone in PC program software firstly.

20.Work Alone

In PC software – Public – Alarm settings – Work Alone, you have to set up the response time, warn time and response method firstly.

Turn on the work alone function in the current channel. When the radio use time is closing to the alone working time, the radio will beep sound and show "Work Alone Predict", click on the

programmed work alone key to confirm continuing work alone, otherwise, the radio will start alarm and send the alarm in the channel when reach the preset response time.

21.TX Allow – for digital channel only

OFF: Always allow transmit

BU: Allow transmit when the channel is free

CD: Allow transmit when receive matched signal but different color code.

CE: Allow transmit when receive matched signal and same color code.

22.Colour Code

The digital channel should have the same color code for communication, you can set up in PC software or in this menu.

23.Digi Encrypt

With the digital encryption, the communication will be confidential. Total 32 digital encryptions for optional, you can set up in PC software or in this menu.

24.Encrypt Type

Choose normal encrypt or enhance encrypt type.

Note: The channel set menu will change according to the channel type. When the channel type is digital, it will auto hide the analog menus.

Device Info

Show the Radio ID, Radio name, serial number, model name, frequency range, firmware version, radio data version, latest program date, picture version, language version etc..

° **TROUBLE SHOOTING GUIDE**

Problems	Solutions
The radio cannot be switched on or no display afterswitched on.	A. Battery pack may not be installed properly. Remove the battery pack and install it again. B. Battery power may be insufficient. Recharge or replace the battery pack.
The battery doesn't last for long after charging.	The battery life is finished; please replace it with a new battery pack.
Cannot talk to or hear other members in your group.	1. Make sure the frequency and CTCSS same with other members. 2. Make sure you are in the efficiency range, cannot too far away from your member. 3. Make sure you are set in correct digital mode, and frequency. 4. In digital mode, make sure set correct code and encrypt group in current channel. 5. In digital mode, make sure set correct receiving contacts and receiving group.
Other voices from non-group members are heard on the channel.	Analog: Change the CTCSS/DCS tone, and make sure change the tone on all radios in your group.

◦ **TECHNICAL SPECIFICATIONS**

AnyTone
We only do best radio!

General	
Frequency Range	136-174MHz (V) ; 400-480MHz (U)
Channel Capacity	4000 channels
Channel Spacing	25KHz (Wide Band) 12.5KHz (Narrow Band)
Phase-locked Step	5KHz, 6.25KHz
Operating Voltage	7.4V DC ±20% /(2000mAh)
Frequency Stability	±2.5ppm
Operating Temperature	-20℃~ +55℃
Size	129×61×39mm (with battery pack)
Weight	282g (with battery pack, antenna)

Receiving Part		
	Wide band	Narrow band
Sensitivity(12dB SINAD)	≤0.25μV	≤0.35μV
Digital Sensitivity	0.3uV/-117.4dBm (BER 5%) 0.7uV/-110dBm (BER 1%)	
Adjacent Channel Selectivity	≥70dB	≥60dB

Spurious Emission	≤-57dB	≤-57dB
Spurious Rejection	≥70dB	≥70dB
Blocking	84db	
Hum & Noise	≥45dB	≥40dB
Audio Distortion	≤5%	
Audio Power Output	1000mW/16Ω	

Transmitting Part		
	Wide band	Narrow band
Power Output	VHF: 7/5/2.5/1W UHF: 6/5/2.5/1W	
Modulation	±5.0KHz@25KHz	±2.5KHz@12.5KHz
Adjacent Channel Power	≥70dB	≥60dB
Hum & Noise	≥40dB	≥36dB
Spurious Emission	≤-36dB	≤-36dB
4FSK Digital Modulation	12.5KHz（data）7K60FXD 12.5KHz（data+voice）7K60FXE	
Audio Distortion	≤5%	
Error rate	≤3%	