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AnyTone®

Qixiang Electron Science & Technology Co., Ltd.
www.qxdz.cn

AnyTone®

AT-318UV

DUAL BAND HANDHELD RADIO

FC CE RoHS COMPLIANT

INSTRUCTION MANUAL

THANK YOU!

AnyTone® transceiver will provide you with reliable, clear and efficient communication service. The transceiver introduces innovative DSP digital signal processing technology, high degree integration, it is including kinds of professional function, best stability and great reliability as well as exterior smooth lines, novel, fashionable, sturdy and durable.

The transceiver is including plenty of TX, RX channels, as well as UU, VV, UV, mono U or Mono V standby modes, the transceiver realized dual PTT functions and 51 groups of CTCSS encode/decode and 1 group of user-defined CTCSS encode/decode, 1024 groups of DCS encode/decode, DTMF encode/decode, built-in FM radio functions, etc..

It is a meticulous build functional and Multi frequency band radio for radio amateur.

MODELS APPLY TO THIS MANUAL

AT-318UV FM Transceiver
Programming software: QPS318UV_1.01

PROGRAM CAUTIONS

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

CAUTIONS

AnyTone® transceiver is excellent designed with advanced technology. The following tips will be helpful for you in performing your obligation under warranty and understanding the safety of transceiver usage.

1.Keep the transceiver and accessories away from children.

2.Please do not try to open or modify the transceiver without permission, non-professionals operation may also cause damage.

3.Please use assorted battery and charger to avoid damage.

4.Please use assorted antenna to ensure the communication distance.

5.Please avoid exposing the radio under the sunshine for a long time or storing it in too hot places. High temperature will shorten the life of electronic devices.

6.Please avoid storing the radio in the dusty, dirty and damp areas.

7.Please keep the radio dry. Do not wash radio with ardent chemicals and detergents.

8.Do not transmit without antenna.

9.When using this transceiver, we recommend transmitting for 1 minute then receiving for 4 minutes. continuously transmitting for long time or working in high power will heat the back of the transceiver. Do not place the transceiver's hot back close to any plastics.

10.If any abnormal smell or smoke coming from the transceiver, please turn off the power instantly and take off the battery and its case. Then contact local AnyTone® dealers.

NOTE:
All the above tips apply for your AnyTone® transceivers' accessories. If any device can not operate normally, please contact with local AnyTone® dealers.
If you use any accessories made by other companies, AnyTone® company does not guarantee the operability and safety of the transceiver.

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AnyTone
We only do best radio!

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Please carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material.

If any items are missing or have been damaged during shipment, please contact with dealers immediately.

Supplied Accessories

Item	Number	Quantity
Antenna	QA11UV	1
Li-ion Battery	QB-43L	1
Battery Charger	QBC-42L	1
AC Adaptor	QPS-01	1
Belt Clip	BC06	1
Instruction Manual		1

○ STANDARD ACCESSORIES/ADDITIONAL ACCESSORIES

Standard Accessories

Antenna*1
QA11UV
155/435MHz

Li-ion Battery
QB–43L

Battery Charger
QBC–42L

AC Adaptor
QPS-01

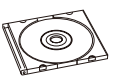
Belt Clip
BC06

Instruction Manual

***1.Note: For frequency band of antenna, please refer to label indicated in the bottom of the antenna.**

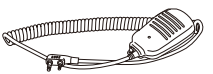
Additional Accessories

USB Programming Cable PC03

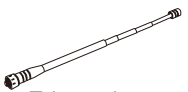


Programming Software
QPS318UV_1.01

Earphone
HS03



Handheld Microphone
QHM22



Telescopic antenna
QA10UV

Charging Operation

The battery is not charged at the factory, please charge it before use. Charge the battery for the first time after purchase or extended storage (more than 2 months) may not bring the battery to its normal operating capacity. After repeating fully charge/discharge cycle for two or three times, the operating capacity will reach the best performance. The battery life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery.

Battery Charger Type

Please use our company's designated charger, other models may cause explosion and injure people. After installing the battery, if the radio red light twinkles and remind changing battery, please charge the battery.

Notice for Charging Battery

- ▲ Do not shortcircuit our company designated charger. Never attempt to remove the casing from the battery, we show no responsibility on the faulty caused by modifying freely without permission of our factory.
- ▲ The ambient temperature should be between 5℃ and 40℃ in charging. Charging outside this range may not fully charge the battery.
- ▲ Always switch off the transceiver equipped with a battery before charging. Otherwise, it will interfere with correct charging.
- ▲ To avoid interfering the charging procedure, please do not cut off the power or take out the battery during charging.

○ BATTERY INFORMATION

▲ Do not recharge the battery if it is already fully charged. This may shorten the life of the battery or damage the battery.

▲ Do not charge the battery or transceiver if it is damp. Dry it before charging to avoid danger.

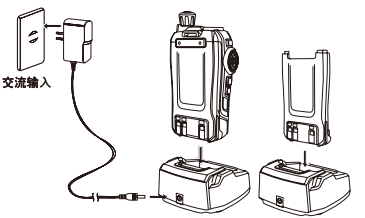
WARNING:
When keys or ornamental chains and other electric metals contact with the battery terminals, the battery may cause damage or hurt bodies. If the battery terminal short circuit, it will generate a lot of heat, please be careful when you bring or use the battery, please put battery or radio into insulated container. Do not put it into metal container.

How to Charge

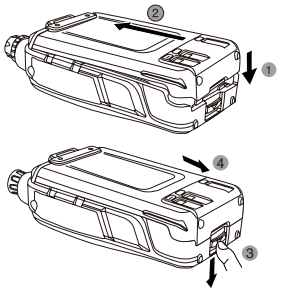
1.Plug the AC adaptor into the AC outlet(100V-240V), then plug the cable of AC adaptor into the DC jack, the indicator lights GREEN---waits to charge.

2.Slide the battery or transceiver with battery into the charger; make sure the battery terminals are in contact with the charging terminals well. LED turns into twinkling RED---charging.

3.It takes about 4 hours to fully charge the battery.



Installing / Removing the Battery



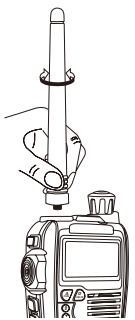
■ Installing the Battery

1. Lay the battery to face the back of the radio.
2. Press the button of battery, the latch in button of transceiver locks will release. After hearing a "click" sounds, the battery has been locked.

■ Removing the Battery

According to "▼" to push the battery lock to removing the battery.

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 till the antenna separates the connector of the transeceiver to remove it.

Installing / Removing the Belt Clip

■ Installing the Belt Clip:

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

■ Removing the Belt Clip:

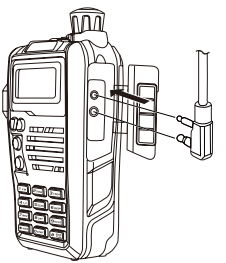
Anticlockwise turn the screws to remove the belt clip.

Installing the Additional Speaker/ Microphone (Optional)

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

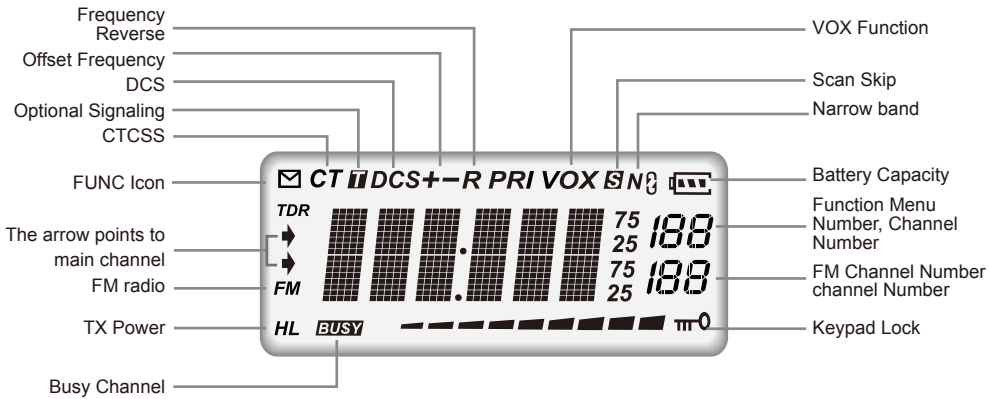
Note:

The transceiver is not completely waterproof while using the Speaker/Microphone.



LCD Display

On LCD display screen, you will see various icons which stand for the selected functions and sometimes you may forget the meaning of them. Here you will find the following table extremely useful.



NOTE:

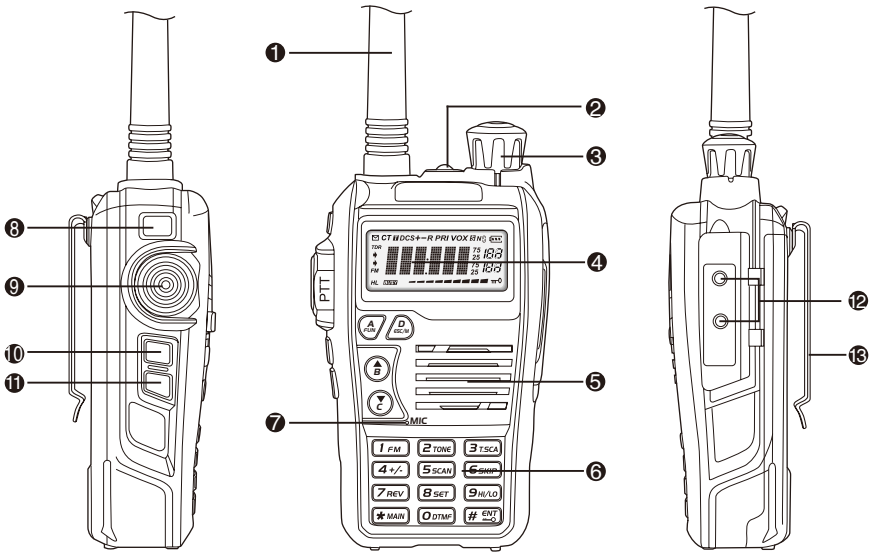
Battery capacity indicator(full)

Battery capacity remnant

No power, replace battery pack or charge battery

Real time display receiving signal strength/Power Indicator

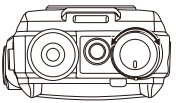
GETTING ACQUAINTED



❶ Antenna
❷ Lamp
❸ Power / Volume Switch
Rotate it clockwise to turn on transceiver, rotate it anticlockwise until heard "click" to turn off the transceiver.
When transceiver is power on, rotate it clockwise to increase volume, anticlockwise to reduce volume.
❹ LCD display
Displays current frequency/channel and operations
❺ Speaker
❻ Keypad
Enters desired frequency/channel or operations by keypad
❼ Mic
❽ PF1 key
❾ PTT key
Press PTT key to talk, release this key to receive.
❿ PF2 key
⓫ MONI key
⓬ Speaker/Microphone jack, programming software jack
⓭ Belt Clip

○ BASIC OPERATIONS

Turn the Radio On & OFF



Under power-off state, please turn [**POWER**]/[**VOLUME**] clockwise to turn on the transceiver. The transceiver will announces prompt tone and displays the current channel on screen.

Under power-on state, please turn [**POWER**]/[**VOLUME**] anticlockwise till hearing "Click" to turn off the transceiver.

Adjusting Volume

Under power-on state, turn [**POWER**] /[**VOLUME**] to adjust volume. Clockwise-up, anticlockwise -down. When adjusting the volume, user can press the key programmed as Squelch Off to monitor current volume firstly.

NOTE:
Press the side key programmed as Squelch Off Momentary to monitor the background noise. Turn [POWER]/ [VOLUME] to control the volume. The volume you need can be adjusted more correctly when communicating with the other party.

Switch between Main band and Sub band

Under standby state, press (✱ MAIN) key to switch channel between Main band and Sub band. Arrow directs the current operational channel.

Switch between Channel mode and VFO mode

Under standby state, press (D SCN) key to set main band as Channel mode or frequency mode(VFO).

Channel Adjusting

1. When transceiver in Channel mode or FM radio channel mode, rotate (B) / (C) to adjust channel. Press (B) to enter the downward channel, Press (C) to enter the upward channel. If there is blank channel between two channels, radio will skip blank channel into next channel.

2. Input channel number by keypad

When transceiver in Channel mode or FM radio channel mode, user can input number(000-199) to switch into desired channel. If input channel number is not belong to unprogrammed channel, radio will emit wrong prompt voice to return current channel. 001 means channel 1,030 is channel 30, 125 is channel 125.

Frequency Adjusting

When transceiver in VFO mode or FM radio frequency mode, rotate (B) / (C) to adjust frequency or input frequency by keypad.

1.Press (B) to increase frequency, Press (C) to decrease frequency. Every rotate can add or reduce one stepping value.

NOTE: Channel step:2.5K, 5K, 6.25K, 10K, 12.5K, 20K, 25K, 30K and 50KHz in total 9 for optional. FM radio step frequency is 50K.

2. Enter the desired frequency by keypad.

In VFO or FM VFO mode, you can directly input frequency by keypad.

NOTE: The frequency input of main channel or FM radio is relevant to the stepping and transceiver frequency range. If frequency setup is beyond range or not matching with step size, the input is unavailable. Under the FM radio mode, the frequency step size input by numeric keys is 100k.

FM Channel Searching

When transceiver in FM radio mode, press (A/FUN) key, LCD displays " ✉ " icon, then press (5 SCAN) to start FM searching. When one station is sought, LCD displays current station frequency, you can listen to current station.

Receiving

When your transceiver is called by other party, the LED light will be on and the arrow icon will flash, you can hear the calling.

NOTE: You may not receive the calling when your transceiver is set at high squelch level. If current channel is programmed with decode signal, only the same signaling call can be heard.

Transmitting

According to [MONI] key setup in programming software, hold [MONI] key to monitor the channel to

ensure it is not busy, press [PTT] key and talk to speaker.
Please keep the distance between mouth and speaker to be 2.5-5CM, speak in normal tone to get the best acoustic fidelity.

NOTE: When press and hold PTT key, transceiver is transmitting if the red LED light is on, release [PTT] key to receive calls.

Emergency Alarm

Under standby state, press and hold [PF1] or [PF2] key which is programmed with ALARM function until LCD displays "ALARM", Emergency alarm function is started. This transceiver has 4 Alarm modes for optional, can be setup in programming software. Power off transceiver to exit Alarm.

Side Key [PF1]/[PF2] function instruction

1. **VOLT:** Battery capacity inquiry: Under standby, press [PF1]/[PF2] key, LCD displays current battery capacity, press this key again to exit.
2. **CALL:** Transmit the prestored DTMF Encode signal in channel.
3. **ALARM:** Long pressing [PF1]/[PF2] key, LCD display "**ALARM**", transceiver will enable the preset alarm function.
4. **SUBPTT:** Press [PF1]/[PF2] key, transceiver will transmit at sub-band frequency.
5. **LAMP:** Press [PF1]/[PF2] to turn on/off lamp.
6. **Transmit tone pulse frequency:** Press and hold [PTT] key, then press [PF1]/[PF2] key to transmit selected tone pulse frequency. The tone pulse frequency can be set to 1750Hz / 2100Hz / 1000Hz / 1450Hz.

MONI Key Function

1.Squelch off: Press [MONI] key, squelch is not mute, you can hear background noise. Press [MONI] again, squelch is mute.

2.Monetary Squelch off: Press [MONI] key, squelch is not mute, you can hear background noise. Release [MONI] again, squelch is mute.

3.Transmit DTMF: Press [PTT] and [MONI] to transmit DTMF signaling.

Note:If there isn't selected signaling, you can transmit DTMF signaling.

4.Press [MONI] to turn on radio, and hold [MONI] until radio emits DU to set background functions.

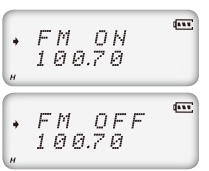
VFO frequency scanning limited

Setup the frequency of L1 channel, U1 channel, L2 channel and U2 channel will realize VFO frequency scanning border limited. L1 and U1 must be in same frequency. L2 and U2 in same frequency, When VFO frequency between L1 and U1 or L2 and U2, radio will scan between them. When VFO frequency exceed L1 and U1 or L2 and U2, radio will scan whole frequency.

Turn On/ Off FM Radio

Under standby state, press [A/FUN] key, the top left corner of LCD displays " ✉ " icon, then press [1 FM] key, LCD displays "**FM ON**" and current FM radio frequency, FM radio function is on. When FM radio is on, press [* MAIN] key, LCD displays "**FM OFF**", FM radio is mute.

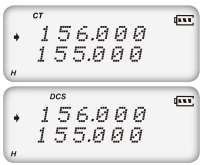
When FM radio is on, press [A/FUN] key, the top left corner of LCD displays " ✉ " icon,



press [1 FM] key to turn off FM radio and return to transceiver state. Re-start transceiver also can exit FM radio function.

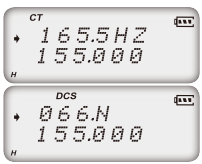
CTCSS/DCS Setup

Under standby state, press [A FUN] key, the top left corner of LCD displays " ✉ " icon, press [2 TONE] key, LCD displays "**CT**" icon, it means current channel add CTCSS signal function. Repeat above operation, LCD displays "**DCS**" icon, it means current channel add DCS signal function. Repeat above operation, "**DCS**" icon disappears, current channel without CTCSS/DCS signal.



CTCSS/DCS Scan

Press [A FUN] key, the top left corner of LCD displays " ✉ " icon, press [3 T.SCA] key to enter into CTCSS/DCS scan. Under this state, press [▲ B] / [▼ C] to change scan direction. When scan the matching CTCSS/DCS signaling, it will stay 5seconds and then go on scanning. Press any other keys except [A FUN], [* MAIN], [# ENT] key to exit.



NOTE: This function is invalid when transceiver works in professional mode or the arrow directed channel no setting CTCSS/DCS signaling.
In current channel, if signaling set as CTCSS, it will scan CTCSS, if sets as DCS, will scan DCS.

Offset Frequency Direction Setup

Under standby state, press (A FUN) key, the top left corner of LCD displays " ✉ " icon, press [4 +/-] key to choose offset frequency direction. There are 3 options, Positive offset, Minus offset, shut off offset.

1. (+) Positive offset: Indicates TX frequency is higher than RX frequency. When enable reverse function, the RX frequency is higher than TX frequency.
2. (-) Minus offset: Indicates TX frequency is lower than RX frequency. When enable reverse function, the RX frequency is lower than TX frequency.
3. None: Indicates shut offset off.

Under frequency mode (VFO) or channel mode, press (A FUN) key then press [4 +/-] key to choose positive offset direction(+), minus offset direction (-), shut offset off one by one (Please refer to offset frequency setup).

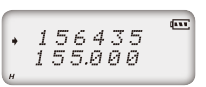
NOTE: This function is invalid in channel mode.

Frequency/Channel Scan

Under corresponding mode, press (A FUN) key, the top left corner of LCD displays " ✉ " icon, then press [5 SCAN] key to start frequency scan or channel scan.

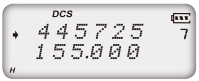
1. Frequency Scan

   Under VFO mode, frequency scan is available. This function is used for monitoring signal of various communication frequency by transceiver 'step' setup, press numeric key or (D ESC/N) key to exit.



2. Channel Scan

Under channel mode, this function is used for monitoring signal of each channel in this mode. Press numeric key or (D ESC/N) key to exit.

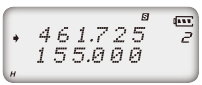


NOTE:

- ▼ **Frequency scan is of all bands scan, it scans upwards as your STEPPING setting.**
- ▼ **In channel scan, the skipped channel is not in the line of scanning. Scan upwards as per channel no. (please refer to channel scan skip).**
- ▼ **Frequency/channel scan can change scan direction by press (▲ B) / (▼ C), when find a matching carrier wave and signaling, the transceiver will stay 5 seconds then go on scanning. (Please refer to scan setup)**

Channel Scan Skip

Under channel mode, press (A FUN) key, the top left corner of LCD displays " ✉ " icon, then press (6 SKIP) key to set current arrow directed channel as Channel scan skip. Repeat above operation to cancel channel scan skip.



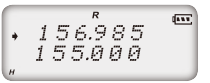
1. LCD displayed "**S**" means the current channel will not be scanned.
2. "**S**" icon disappeared means the current channel will be scanned.

Frequency Reverse

Under standby state, press (A FUN) key, the top left corner of LCD displays " ✉ " icon, then press (7 REV) key

to set arrow directed channel as frequency reverse, repeat above operation to turn off frequency reverse.

1. When LCD displays "**R**" icon, it means current arrow directed channel open the frequency reverse function, the TX frequency and RX frequency is interchanged, if CTCSS/DCS signaling is set, it will also interchange.
2. When "**R**" icon disappears, it means reverse function is close.



TX Power selection

Under standby state, press (A/CH) key, the top left corner of LCD displays " ✉ " icon, then press (9 HI/LO) key to choose High/Low power for current arrow directed channel.

1. When LCD displays "**L**" icon, it means low power is chose.
2. When LCD displays "**H**" icon, it means high power is chose.

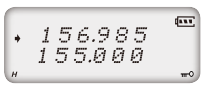
DTMF code Transmit and Enquiry

1. Press (A/CH) key, the top left corner of LCD displays " ✉ " icon, then press (0 DTMF) key, LCD displays DTMF data and group number (total 16 groups) of current group.
2. Press (▲ B) / (▼ C) to choose desired group and DTMF data, press [PTT] key to transmit selected DTMF signaling. If current group not edit DTMF data, LCD displays the current group number and "**EMPTY**".

3. When current group displays "**EMPTY**", press (A FUN) key, the top left corner of LCD displays " ✉ " icon, press and hold (O DTMF) key until transceiver emits "DU" beep, transceiver enters into DTMF edit state, LCD displays "_____", now you can enter desired DTMF data by keypad.
4. When finished editing, press side key [PF2] to save DTMF signaling.

Keypad lock

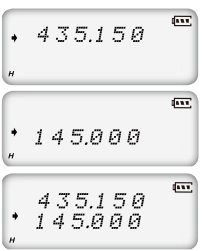
In order to prevent wrong operation, user can make use of keypad lock function. Under standby state, press (A FUN) key, the top left corner of LCD displays " ✉ " icon, then press and hold (# ENT) key until transceiver emits "DU" beep, LCD displays "🔒" icon, keypad is locked. Repeat above operation, "🔒" icon disappears, key lock function is cancelled.



Single-band Switching

To avoid interference from the sub channels when main channel in use, you can use the single band switching function to turn off sub channel band quickly.

1. In standby mode, press (A FUN) key then press (✱ MAIN) key, the radio will display the upper band, the lower band will be turned off.
2. Repeat above operation, the radio will display the lower band, the upper band will be turned off.
3. Repeat above operation to return to dual band display.



○ FUNCTION MENU SETUP

Menu 1-13 of this transceiver are channel operations. Channel operations temporarily changed the functions of current channel. When power off or channel has been changed, the relevant setup will be erased. Only under VFO mode, the channel operations will be saved until next change. Menu 14-32 is background operation, it is valid for all channels, the relevant setup will be saved until next change.

The operating methods are as follows:

1. Press (A FUN) key, the top left corner of LCD displays " ✉ " icon, then press [8 SET] key to enter function menu.
2. Press (▲ B) / (▼ C) key to choose desired function.
3. Press (A FUN) enter into next menu, press (▲ B) / (▼ C) to select desired setting.

   Note:In CTCSS/DCS setting, Press [1 FM] to select CTCSS, DCS or OFF. When select DCS press [* MAIN] to switch between positive and negative code, In editing name, press [1 FM] to move downward icon, press [4 +/-] move upward icon.

4.Press (A FUN) to return last menu or press (D ESC/M), [# ENT] to confirm and exit. .

If you need detailed operation, please download complete user manual from our website (www.qxdz.cn), or call our service department.

Menu No.	LCD Display	Function	Options	Description
1	T-CDC	CTCSS/DCS Encode	OFF	No CTCSS/DCS Encode
			62.5HZ-254.1Hz+Self defined	51 groups fixed CTCSS encode+1 group self-defined CTCSS encode
			000N-777I	1024 groups DCS Encode

2	R-CDC	CTCSS/DCS Decode	OFF	No CTCSS/DCS Decode
			62.5HZ-254.1Hz+Self defined	51 groups fixed CTCSS decode+1 group self-defined CTCSS decode
			000N-777I	1024 groups DCS decode
3	RT-CDC	CTCSS/DCS Encode/Decode Synchronous	OFF	No CTCSS/DCS encode/decode
			62.5HZ-254.1Hz+Self defined	51 groups fixed CTCSS encode/decode + 1 group self-defined CTCSS encode/decode
			000N-777I	1024 group DCS encode/decode
4	TONDEC	Optional signaling setup	DTMF	Current optional signal is DTMF
5	SIGNAL	Squelch mode setup	SQ	When current channel received matching RF signals, transceiver can hear the talking from the other party.
			CTCSS/DCS	When current channel received matching RF signals and matching CTCSS/DCS signaling, transceiver can hear the talking from the other party.
			TONE	When current channel received matching RF signals and matching optional signaling, transceiver can hear the talking from the other party.
			CT&TO	When current channel received matching RF signals + matching optional signaling + matching CTCSS/DCS signaling, transceiver can hear the talking from the other party.

FUNCTION MENU SETUP

5	SIGNAL	Squelch mode setup	CT/TO	When current channel received matching RF signals, or matching optional signaling, or matching CTCSS/DCS signaling, transceiver can hear the talking from the other party.
6	STEP	Frequency step size setup	2.5K-50K	9 options in total
7	W/N	Wide / Narrow Band Selection	WIDE/NARROW	Wide band/Narrow band
8	REV	Frequency Reverse	ON	Turn on Frequency reverse function, TX and RX frequency of current channel will be interchanged.
			OFF	Close Frequency reverse function.
9	TALKAR	Talk Around	TX=RX	Turn on Talk Around function, current channel will transmit at RX frequency, if CTCSS/DCS signaling is set, it will interchange decoding CTCSS/DCS as encoding.
			OFF	Close Talk Around function.
10	OFFSET	Offset Frequency setup	0-70MHz	Frequency range is 00-70MHz.
11	NAME	Editing Channel name	a-Z	In channel name display mode, will display the edited channel name.
12	RPLOCK	Busy Channel Lockout	BUSY	Carrier wave lock, transmitting is prohibited when received matching carrier wave.
			REPEAT	Signaling lock, transmitting is prohibited when received matching carrier but with mismatching CTCSS/DCS
			OFF	Close B CLO function.

13	TX	TX OFF	ON	TX function is enabled in current channel
			OFF	TX function is disabled in current channel
14	BAND	Band Limit	ON/OFF	Turn on/off band limit function
15	DSPSUB	Sub band display setup	FREQ	Display sub band frequency or channel
			VOLT	Display current battery voltage
			OFF	Sub band display is disabled
16	BEEP	Keypad Voice prompt setup	ON/OFF	Turn on/off keypad voice prompt function
17	TOT	Time-Out-Timer	OFF	Turn off time-out timer
			1-27MIN	Total 27minutes of TOT for optional, each interval is 1minute
18	VOX	Voice Operated Transmission (VOX) Setup	OFF	Turn off VOX function
			1-10	Total 10 VOX levels for optional
19	VDELAY	VOX Delay Setup	0.5S-3S	Total 27 levels for optional, each interval is 0.1S
20	APO	Automatic Power Off Setup	OFF	Disable the Automatic power off function
			30MIN-2HOUR	30minutes ~ 2hours: Total 3 levels for optional
21	DTMF	DTMF Transmitting Time	50MS-500MS	Total 5 kinds of DTMF transmitting time for optional
22	SQL	Squelch level Setup	00-09	10 levels of squelch in total for optional, "00" is minimum setup value (normally open)

○ FUNCTION MENU SETUP

23	SCAN	Scan Dwell Time Setup	5ST-15ST	When scanning matched signal, transceiver will stop scanning for 5-15seconds then resume.
			2SP	When scanning matched signal, transceiver will stop scanning, 2seconds after signal disappeared, then resume.
24	FTIME	Function Icon Stay Time	FUNCT	When finished function setting or enter into function menu, icon disappeared.
			1SEC-3SEC	When finished function setting or enter into function menu, icon stay 1-3seconds then disappeared.
			ALWAYS	Function icon is always display, only when pressing function key again, the icon will disappear.
25	LIGHT	LCD Backlight	ON/OFF	Always on/off
			AUTO	Backlight will automatic closed after a period.
26	COLOR	LCD Backlight Color	BLUE/ORG/PUR	Blue/Orange/Purple
27	ID	Self ID inquiry	***	LCD displays radio self ID, DTMF ID is 3 digits.
28	TBST	Tone Pulse Frequency Selection	1750Hz/2100Hz/1450Hz/ 1000Hz	Tone plus frequency is 1750Hz/2100HZ/1450Hz /1000Hz
29	SAVE	Battery Save Setup	OFF	Turn off battery save function.
			1:2-1:8	Battery save time is 1:2-1:8
			AUTO	Battery save ratio is adjusting automatically.
30	RADIO	FM radio	ON/OFF	Allow/Prohibit using FM radio.

31	PF1	Self define PF1/ PF2 key function	VOLT	Displays current battery capacity.
			CALL	Call function.
			ALARM	Emergency alarm function.
32	PF2		SUBPTT	Sub band PTT.
			LAMP	Lamp
			OFF	No function.

○ FUNCTION MENU SETUP

Display Mode Setup

There are three kinds of display modes for optional.

1. Press [MONI] key to turn on radio, hold [MONI] key until transceiver emits beep.
2. Press (▲B) / (▼C) key to choose No. 01 function item, it shows "**DSP**" on LCD.
3. Press (A FUN) enter into next menu, then press (▲B) / (▼C) to select desired setting.

   FREQ: Frequency + Channel mode, transceiver displays current channel name + frequency, press (▼C) key to switch into VFO mode.

   CH: Channel mode, 1~21 items of function menu will hide automatically, user can only operate some functions. It is unable to switch into VFO by pressing (D ESC/M) key and the factory default setting is locked. This model can be used for professional mode.

   NAME: Channel + Name Tag mode, transceiver displays current channel number + channel name, press (▼C) key to switch into VFO mode.

4. Press (D ESC/M) key or [# ENT] key to confirm and exit.

Resume Factory Default

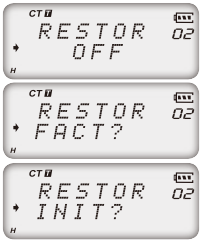
You can make all the settings of transceiver return to the factory default settings when transceiver can not work normally because of wrong operation or error setup.

1. Press [MONI] key to turn on radio, hold [MONI] key until transceiver emits beep.

2. Press (B) / (C) key to choose No. 02 function item, it shows "**RESTOR**" on LCD.
3. Press (A/CH) enter into next menu, then press (B) / (C) to select desired setting.
   OFF: No operations.

   FACT: Resume all items to factory default, including channel and background settings.

   INIT: Resume background settings to factory default, channel operations are keeping.
4. Press (D/ESC/M) key to exit current selection.
5. Press (# ENT) key to confirm current selection.



Note: In power off state, hold (D/ESC/M) key to power on radio, the radio will resume to factory default.

○ TECHNICAL SPECIFICATION

General	
Frequency Range	VHF：136~174MHz UHF：400~480MHZ (EX：400~520MHz)
Channel Capacity	200 channels
Channel Spacing	25KHz (wide band) 12.5KHz (narrow band)
Phase–locked Step	0.1KHz
Operation Voltage	7.4V DC ±20%
Battery Life	More than 12 Hours(1300mAh), by 5–5–90 working cycle
Frequency Stability	±2.5ppm
Operation Temperature	–20℃~ +55℃
Size	113x62x35mm (with battery)
Weight	198g(with battery)

Receiving Part		
	Wide band	Narrow band
Sensitivity (12dB SINAD)	≤0.25 μ V	≤0.35 μ V
Adjacent Channel Selecitvity	≥65dB	≥60dB
Intermodulation	≥60dB	≥60dB
Spurious Rejection	≥70dB	≥70dB
Hum & Noise	≥45dB	≥40dB
Audio Distortion	≤5%	
Audio Power Output	1000mW/10%	

Transimitting Part		
	Wide band	Narrow band
Power Output	4W/1W (UHF) 5W/1W (VHF)	
Modulation	16KΦF3E	11KΦF3E
Adjacent Channel Power	≥65dB	≥60dB
Hum & Noise	≥40dB	≥40dB
Spurious Emission	≤–36dB	≤–36dB
Audio Distortion	≤5%	

Problem	Corrective Action
No power	A.The battery may be exhausting. Recharge or replace the battery. B.The battery may not be installed correctly. Remove the battery and install it again.
Battery power dies shortly after charging.	The battery life is finished. Replace the battery pack with a new one.
No sound after using earphone. for a while	Earphone jack is broken. Please contact with local dealers to repair.
Cannot talk or hear other members in your group	A.Different frequency or channel, please change it. B.Different CTCSS / DCS / DTMF, please reset it. C.Out of communication range.
Receiving intermittent with in big noise	Out of communication range or obstruct by tall buildings or in big noise.