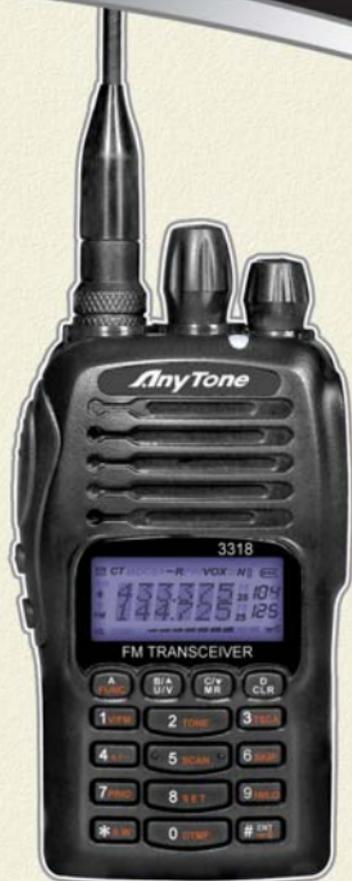


AnyTone



ISO 9001
ISO 14001



AT-3318

TWO-WAY RADIO

USER'S MANUAL

Thank you!

Thank you very much for choosing this Anytone transceiver. *AnyTone*[®] transceiver will provide you with reliable, clear and efficient communication service.

The transceiver is novelty designed with multi-function, powerful, great reliability and easy operation; we trust its quality and function will ensure your satisfaction. In order to completely understand the superior performance, using and maintaining of the transceiver, please read the manual before using.

MODELS APPLY TO THIS MANUAL

AT-3318: UHF FM Transceiver VHF FM Transceiver

AT-3318: UHF FM Transceiver Software applicable: QPS3318U

AT-3318: VHF FM Transceiver Software applicable: QPS3318V

ATTENTION

When programming the transceiver, read the factory initial data first, then rewrite the frequency, otherwise errors may occur.

SAFETY INFORMATION FOR USER

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

- 1.Keep the transceiver and accessories away from children.
- 2.Please do not try to open or modify the transceiver without permission, non-professionals process may also 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 transceiver to long period of direct sunlight, nor place it close to heat appliances.
- 6.Please do not put the transceiver in excessively 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 transceiver. We recommended transmitting for 1 minute then receiving for 4minutes. Continuous 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 surface of plastic.
- 10.If any abnormal odor or smoke detected coming from the transceiver, turn off the power and take off the battery pack 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 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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◦ UNPACKING AND CHECKING EQUIPMENT

(((Unpacking And Checking Equipment

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 dealers immediately.

(((Supplied Accessories

Item	Number	Quantity
Antenna	QA01V(136-174MHz)	1
	QA01U(400 - 470MHz) etc.	
Li-ion battery pack 7.4V/1300 mA	QB-26L	1
Charger	QBC-26L	1
AC Adaptor	QPS-01	1
Belt Clip	BC01	1
Hand Strap	GS01	1
Instruction Manual		1
Warranty Card		1
Certificate		1

○ STANDARD ACCESSORIES/OPTIONAL ACCESSORIES

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☺ **Standard Accessories**



Antenna*
QA01V(136-174MHz)
QA01U(400-470MHz) etc.



Battery Pack
QB-26L



Battery Charger
QBC-26L



AC Adaptor
(12V/500MA)
QPS-01



Belt Clip
(including screw)
BC01



Hand Strap
GS01



Instruction Manual



Warranty Card



Certificate

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

☺ **Optional Accessories**



USB Programming Cable
PC01



Programming Software
QPS3318U
QPS3318V



Earphone
HS01



Cloning Cable
CP01



Handheld Microphone
QHM20

◦ FIRST-LEVEL MENU (SHORTCUT OPERATIONS)

Function	Setup Entry	Display	Parameter Instruction	Page
VHF/FM Switch	 → 		VHF	23
VHF/FM Switch	 → 		FM	23
Choose Optional signaling	 → 		D : Choose DTMF signaling	24
Choose Optional signaling	 → 		T : Choose 2Tone signaling	24
Choose Optional signaling	 → 		F : Choose 5Tone signaling	25
CTCSS/DCS Scan	 → 		CTCSS Scan	25
CTCSS/DCS Scan	 → 		DCS Scan	25
Offset Direction Setup	 → 		(+) : Transmitting frequency higher than receiving frequency	26
Offset Direction Setup	 → 		(-) : Transmitting frequency lower than receiving frequency	26
Scan	 → 		Scan channel or frequency	27
Scan Channel Skip	 → 		S : Scan without current channel	27
Priority Monitor	 → 		PRI : Check priority watch channel every 5 seconds	28
Switch High / Low Power	 → 		H : High Power 4 W	29
Switch High / Low Power	 → 		L : Low power 1 W	29
Stopwatch	 → 		Stopwatch timing	30
Key Lock	 → 		All keys locked, except PTT/PF1/ PF2 	32

○ SECOND-LEVEL MENU (CURRENT CHANNEL FUNCTION SETUP)

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Function	Menu Entry	Function Option	Display	Parameter Adjustment	Parameter Instruction	Confirm to back	Page
CTCSS/DCS Encode Setup	A FUNC → 8 SET	B U/V / C MR	OF T-DCS 885HZ	Press 1 V/FM to switch CTCSS/DCS/OFF, tuning channel Selector to choose desired value.Press Ⓢ S.W to switch DCS inverted and positive code.	CTCSS(51 Groups in total): 62.5Hz-254.1Hz DCS(1024 Groups in total):000N-777I	D CLR / # ENT → 0	33
CTCSS/DCS Decode Setup	A FUNC → 8 SET	B U/V / C MR	DC R-DCS 825N	Press 1 V/FM to switch CTCSS/DCS/OFF, tuning channel Selector to choose desired value.Press Ⓢ S.W to switch DCS inverted and positive code.	CTCSS(51 Groups in total): 62.5Hz-254.1Hz DCS(1024 Groups in total):000N-777I	D CLR / # ENT → 0	33
Choose to transmit 2TONE	A FUNC → 8 SET	B U/V / C MR	2TONE CALL 00	Tuning channel selector to get the value desired.	2TONE:00-99 Groups optional,100 groups in total	D CLR / # ENT → 0	34
Choose to transmit 5TONE	A FUNC → 8 SET	B U/V / C MR	5TONE CALL 00	Tuning channel selector to get the value desired.	5TONE:00-99 Groups optional,100 groups in total	D CLR / # ENT → 0	35
Signaling Combination Setup	A FUNC → 8 SET	B U/V / C MR	SIGNAL SQ	Tuning channel selector to get the value desired.	Signal: SQ, CT/ DCS,TONE, CT&TO, CT/TO five modes optional.	D CLR / # ENT → 0	35
Offset Frequency	A FUNC → 8 SET	B U/V / C MR	OFF SET 0000	Tuning channel selector to get the value desired.	0-69.995MHz Optional	D CLR / # ENT → 0	36
Wide/ Narrow Band Setup	A FUNC → 8 SET	B U/V / C MR	W/N 20K	Tuning channel selector to get the value desired.	Wide band 25K;Middle band 20K; Narrow band 12.5K;	D CLR / # ENT → 0	37
Frequency Reverse	A FUNC → 8 SET	B U/V / C MR	RE U N	Tuning channel selector to get the value desired.	ON: Enable Frequency Reverse OFF: Disable Frequency Reverse	D CLR / # ENT → 0	37
Talk Around Setup	A FUNC → 8 SET	B U/V / C MR	TALK AR OFF	Tuning channel selector to get the value desired.	TX=RX:talk around enable OFF:talk around disable	D CLR / # ENT → 0	38
Frequency Step Size Setup	A FUNC → 8 SET	B U/V / C MR	STEP 5K	Tuning channel selector to get the value desired.	Frequency step can be set: 5K/6.25K/10K/12.5K/20K/25K/30K/50K	D CLR / # ENT → 0	38
TX Off	A FUNC → 8 SET	B U/V / C MR	T X O N	Tuning channel selector to get the value desired.	ON: Transmitting on OFF: Transmitting off	D CLR / # ENT → 0	39
Compander	A FUNC → 8 SET	B U/V / C MR	C O M P O N	Tuning channel selector to get the value desired.	ON: Enable compander OFF: Disable compander	D CLR / # ENT → 0	39
Scrambler	A FUNC → 8 SET	B U/V / C MR	S C R O F F	Tuning channel selector to get the value desired.	10 fixed scrambler and 1 group customize scrambler (USER) for choice	D CLR / # ENT → 0	40

• THIRD-LEVEL MENU (BACKGROUND OPERATIONS)

Function	Menu Entry	Function Option	Display	Parameter Adjustment	Parameter Instruction	Confirm to back	Page
Prompting tone	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	BEEP: Beep sounds ENG: English annunciation CHN: Chinese annunciation OFF: OFF	 / 	41
Time-out Timer	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	1-30MIN: total 30 minute timer to choose OFF: Disable TOT	 / 	42
Voice Operated Transmission (VOX) Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	1-10 levels of VOX ON OFF: VOX OFF	 / 	42
Voice Operated Transmission (VOX) Delay	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	0.3S-3S, 28 levels of delay time to choose	 / 	43
Auto Power-Off	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	Automatic Power-Off after 30-120 minutes OFF: Disable Automatic Power-Off	 / 	43
Busy Channel Lockout	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	Set repeater lockout or carrier busy lockout OFF: Busy Channel Lockout off	 / 	44
DTMF Transmitting Time Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	50MS,100MS,200MS,300MS,500MS for choice	 / 	45
UHF Squelch Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	00-10: 10 levels of UHF Squelch to choose	 / 	45
Scan Dwell Time Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	Choose to remain 5 secs/10secs/15secs to scan, or scan after 2SP signal disappears 2 seconds	 / 	46
Function Key Icon Dwell Time Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	Choose  , disappears after setting; or disappears after 1S/2S/3S ; or always display by choosing	 / 	47
Backlight Setup	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	OFF: Permanent off ON: Permanent on AUTO: backlight remains for a while then quenches	 / 	47
Choose Backlight Color	Press and hold PF2 to power on	 / 		Tuning channel selector to get the value desired	BLUE: Blue backlight ORG: Orange backlight PUR: Purple backlight	 / 	48

○ THIRD-LEVEL MENU

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Function	Menu Entry	Function Option	Display	Parameter Adjustment	Parameter Instruction	Confirm to back	Page
Display Mode Setup	Press and hold PF2 to power on			Tuning channel selector to get the value desired	FREQ: Channel frequency +Channel number display CH: Channel number display NAME: Channel name+ Channel number display		49
Current Battery Voltage Display	Press and hold PF2 to power on			Tuning channel selector to get the value desired	For example, 7.9V is the current battery voltage		49
Choose Tone-pulse Frequency	Press and hold PF2 to power on			Tuning channel selector to get the value desired	1750HZ Tone-pulse frequency 2100HZ Tone-pulse frequency 1000HZ Tone-pulse frequency 1450HZ Tone-pulse frequency		49
ANI Function Setup	Press and hold PF2 to power on			Tuning channel selector to get the value desired	OFF: DTMF-ANI function OFF ON: DTMF-ANI function on		50
Battery Save Setup	Press and hold PF2 to power on			Tuning channel selector to get the value desired	1:2: operative mode and saving battery mode are in the ratio 1:2, by inference; AUTO: Automatically adjust operative mode and saving battery mode; OFF: disable saving battery function		51
Dual Watch Setup	Press and hold PF2 to power on			Tuning channel selector to get the value desired	ON: VHF and UHF dual watch on OFF: VHF and UHF dual watch off		52
Restore factory default	Press and hold PF2 to power on			Tuning channel selector to get the value desired	OFF: no operation FACT?: restore factory default INIT?: restore initial setup		53

○ MENU EXPLANATION

Note:This product has 4 working modes and 3 levels of operating menu.

(1) **Frequency + Channel mode:** Under this mode, press **A FUNC** then press **8 SET** to temporarily change current channel function for users. If power off or change the channel, the temporary change will be deleted automatically, and the shortcut operations under this mode are temporarily changed.

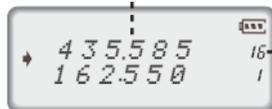
(2) **Channel mode:** Under this mode, press **A FUNC** then it will be invalid to press **8 SET**; Press **A FUNC** + **5 SCAN** to scan channel; press **A FUNC** + **0 DTMF** to choose DTMF group for editing and transmitting; press **A FUNC** + **# ENT** to lock the keyboard. Under channel mode, Functions (such as optional signaling) should be set up through programming software. Shortcuts are invalid.

(3) **Channel name mode:** Under this mode, press **A FUNC** and then press **8 SET** to program channel name. Shortcuts under this mode are temporarily changed.

(4) **Frequency mode (VFO):** Under this mode, shortcuts and channel functions will be changed to the newest setup and saved.

Under any mode, background operations (third-level menu) can be changed and permanently saved as the newest setup in the radio.

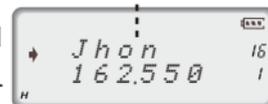
Current frequency



Current channel



Current channel name



(((Charging The Battery Pack

The battery pack is not charged at the factory; please charge it before use. Charge 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 repeating fully charge/ discharge cycle for two or three times, the operating capacity will reach the 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 injure people. After installed the battery pack, if the radio displays low battery "☹", please charge the battery.

(((Notes

- Do not short the battery terminals or dispose of the battery by fire. Never attempt to remove the casing from the battery pack, we show no responsibility on the faulty causing by modifying freely without permission of our factory.
- The ambient temperature should be between 5°C and 40°C while charging is in progress. Charging outside this range may not fully charge the battery.
- Always switch OFF the transceiver equipped with a battery pack during charging. Otherwise, it will interfere with correct charging.
- To avoid interfering the charging, please do not cut off the power or take out the battery during charging.
- 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.
- Do not charge the battery or transceiver if it is damp. Dry it before charging to avoid danger.

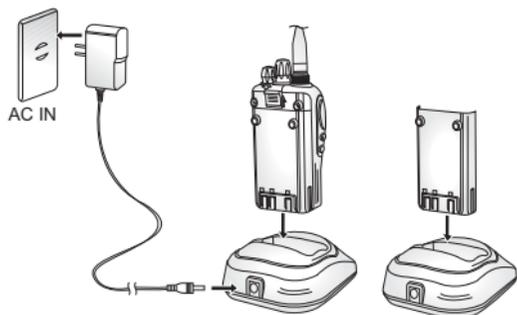
○ BATTERY INFORMATION

WARNING

When keys or ornamental chain and other electric metals contact with the battery terminal, 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, then plug the cable of AC adaptor into the DC jack located on the rear of the charger, the charger LED lights ORANGE (1S) and then goes out---waits to charge.
 2. Slide the battery or transceiver with battery pack into the charger; make sure the battery pack terminals are in contact with the charging terminals well. LED turns into twinkling RED ---precharge begins.
 3. Precharge for about 5 minutes, LED twinkles stop then charging begins.
 4. It takes approximately 4 hours to fully charge the battery, when LED turns into GREEN---charging finishes. You can remove battery or the transceiver equipped with battery from charger.
- **Note:** When charging a power-on transceiver equipped with battery, the LED will not turn to green to show the full charge status (it will remain RED even when it is fully charged). Only when turn off the transceiver, the LED can change normally. (Because when the transceiver is power on it would consumes energy, the charger can not detect when battery has been fully charged, the charger will charge battery in constant voltage and fail to indicate correctly that the



o BATTERY INFORMATION

battery has been charged fully.)

5. Charging process:

Status	LED
Standby	 No display
Precharging (precharging status)	 Red light twinkles for about 5 minutes
Start charging (charge in a constant current)	 RED light for about 4 hours
Full charged (charge in a constant voltage)	 Green light

6. LED Indicator:

STATUS	Self-examine when power on	Standby (No battery)	precharge	Charge normally	Full Charged	Trouble
LED	Orange(for 1 second)	No display	Red light twinkles for 5 minutes	Red	Green	Red twinkles for long time

- **Note:**Trouble: Battery is pyrogenic, battery or charger short-circuits.

(((Normal Charging Note

1. Self- examination: when charging, ORANGE light twinkles for 1 second and goes out. That means the charger had pass its self-examination and it can charge the battery normally. If the light remains orange or the red light twinkles, that means the charger can not pass its self-examination or charge the battery.
2. Trickle precharge: when the battery has been insert into the charger and red light twinkles, that means

○ BATTERY INFORMATION

the remnant voltage is low, the charger trickle-charge the battery (precharging status), until the battery reaches a certain electric quantity, the charger automatically turn into normal charging. And if the red light stop twinkling, that means the remnant voltage meets a certain electric quantity, the charger will charge the battery normally.

(((How To Store The Battery

- 1.If the battery needs to be stored, the battery should keep in the status of 50% discharge.
- 2.It should be kept in low temperature, dry environment.
- 3.To keep away from hot places and directly sunlight.

WARNING

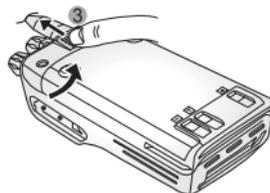
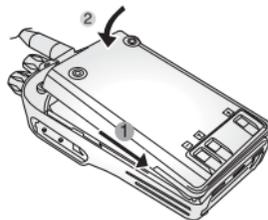
- Do not short circuit battery terminals.
- Never attempt to remove the casing from the battery pack.
- Never assemble the battery in dangerous surroundings, spark may cause explosion.
- Do not put the battery in hot environment or throw into fire, it may also cause explosion.

○ PREPARATION

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(((Installing/Removing The Li-ion Battery Pack

1. Match the three grooves of the battery pack with the corresponding guides on the back of the transceiver and push.
2. Press the battery pack and transceiver firmly together until the release latch on the top of the transceiver locks. After hearing a "**click**" sounds, the battery has been locked.
3. To remove the battery pack, slide up the release latch and remove the pack away from the transceiver.



◦ PREPARATION

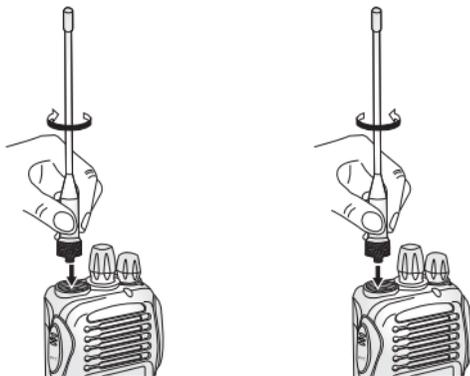
(((Installing / Removing The Antenna

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:

Anticlockwise turn the antenna to remove it.



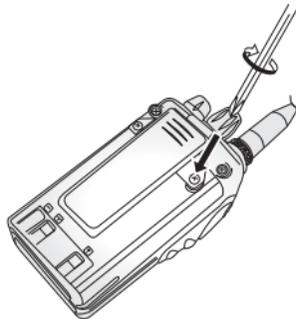
(((Installing / Removing The Belt Clip

Installing the Belt Clip:

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

Removing the Belt Clip:

Anticlockwise turn screws to remove the belt clip.



○ PREPARATION

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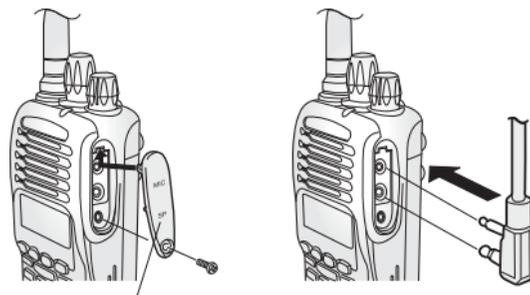
(((Installing The Optional Speaker/Microphone

If you do not use a speaker / microphone, please install the cover over the speaker / microphone jacks using the supplied 3X6mm screw.

Note: To keep the transceiver water resistant, you must cover the speaker/microphone jacks with the supplied cover.

Insert the speaker/microphone plugs into the speaker/microphone jacks.

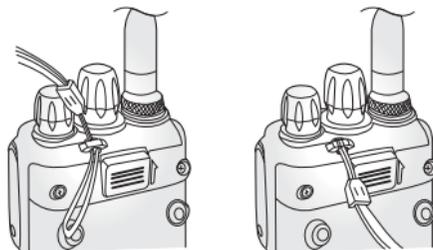
Note: The transceiver is not completely water resistant while using the speaker/microphone.



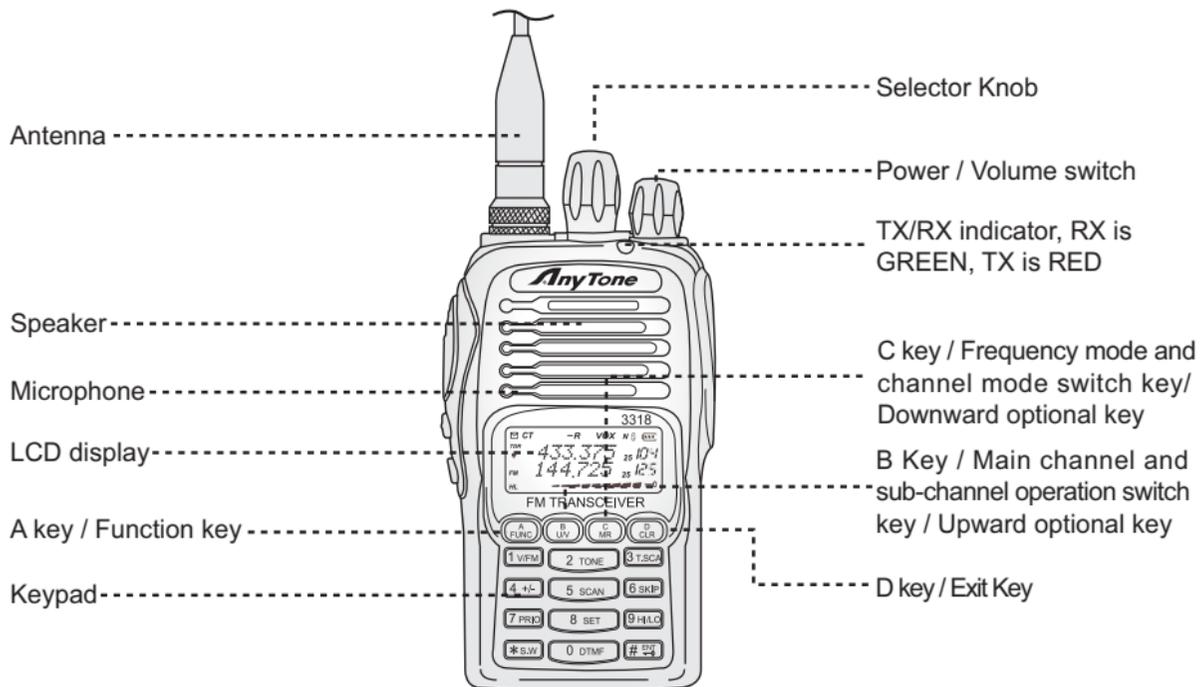
Earphone/MIC jack cover

(((Installing/ Removing The Hand Strap

Slide the loop of the hand strap through the eyelet on the upper rear of the transceiver; pull the entire hand strap through the loop to secure the hands strap in place.

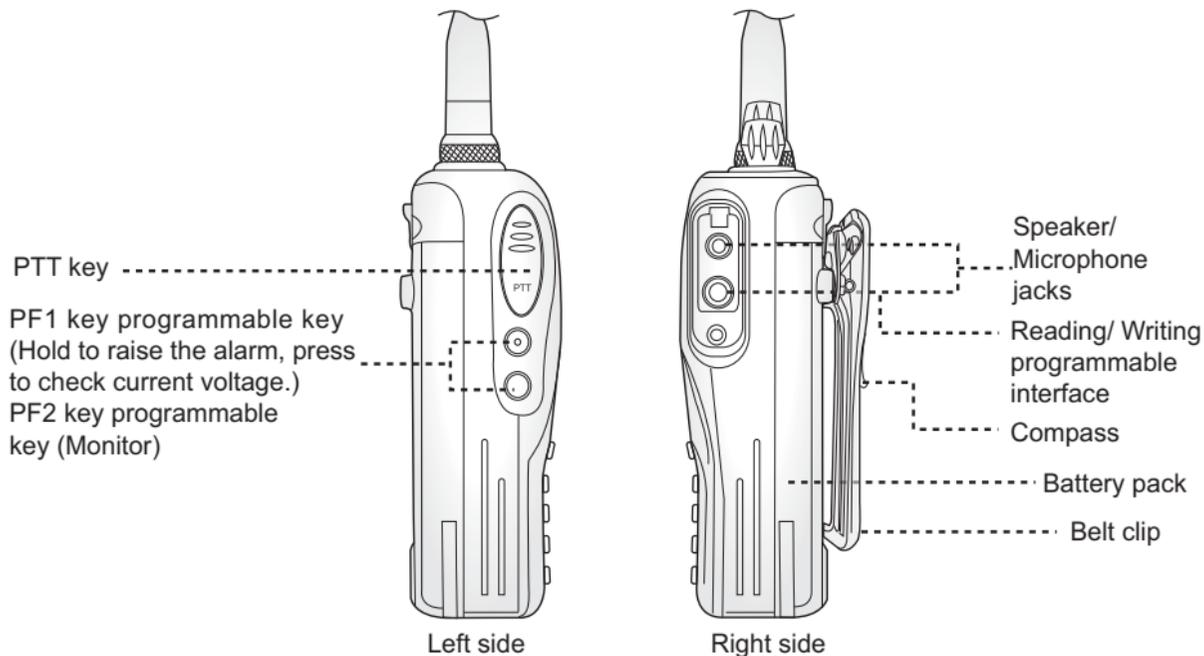


Front Panel



◦ GETTING ACQUAINTED

Side Panel



📡 **Switch On/ Off**



Turn **[POWER]/ [VOLUME]** clockwise to switch the transceiver on.



Turn **[POWER]/ [VOLUME]** anticlockwise to switch the transceiver off.

📡 **Adjust Volume**



After switch on the transceiver, turn **[POWER]/ [VOLUME]** to adjust volume. Clockwise-up, anticlockwise--down.
When adjusting the volume, press side key **[PF2]** to monitor current volume. (Refer to the function setup of side **[PF2]** key.)

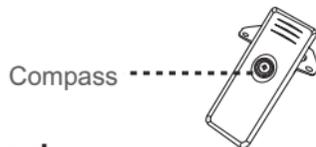
WARNING

- When turning **[POWER] / [VOLUME]** to adjust the volume, you can press side **[PF2]** key which are programmed to squelch off momentary to monitor the current volume.
- When communicating with others, volume can be adjusted more accurate.

◦ BASIC OPERATIONS

(((Compass

Lay flat the transceiver (shown in the picture),
Compass inset in the belt clip can direct correctly.



(((Switch Between Main Channel And Sub-channel

Press **B**/**U/V** key can Switch between Main Channel and Sub-channel, arrow directs the channel available.

- **Note:** Sub-channel only offers channel edit, delete, scan function, other functions belongs to main channel.

(((Enter Frequency By Keyboard

Only in main channel frequency mode / sub-channel frequency mode / FM mode, the function is available, you can make a direct frequency entry through numeric keys.

1.If the transceiver is in frequency+ channel mode, press **C**/**M/R** to switch to frequency mode.

- **Note:** If transceiver is in frequency+ channel mode, it shows current channel number on the right of main frequency.
- 2.Enter desired frequency on keypad.
- **Note:** The entering frequency of main channel and sub-channel relates to stepping and frequency range, if the entered frequency does not match the current frequency step size, the frequency is automatically invalid. Under FM radio mode, the step size of FM radio is 100K; when tuning channel selector knob, the step size is 20K.

(((Enter Channel Number By Keyboard

Under frequency + channel mode or channel name mode, you can change the channel by entering three numbers (001-128), and if the channel has not been programmed, an error sound will inform you to return to current channel. For example, enter 001 to turn to the 1st channel, enter 030 to turn to the 30th channel, enter 125 to turn to the 125th channel.

(((Change Frequency / Channel Through Channel Selector Knob

Under frequency mode, you can change the current frequency to desired one through channel selector knob; clockwise turn to increase frequency; anticlockwise turn to decrease, every gear will increase/decrease one step.

- **This transceiver has 8 step size: 5, 6.25, 10, 12.5, 20, 25, 30 and 50 KHz, please refer to step frequency setup.**

Under channel mode, you can change the current channel to desired one through channel selector knob, clockwise turn to the next channel, anticlockwise turn to the last channel.

(((Alarm

When side [PF1] key is set as alarm, press and hold this key for 3 seconds to sound alarm and transmit, press again to cancel.

- **Note: Default to be ON. Please use programming software to close this function.**

(((Squelch Off Momentary/ Squelch Off

When side [PF2] key function set as "Squelch Off Momentary/ Squelch Off ", you can use this key to listen to weak signals that you cannot hear during normal operation.

1.Squelch Off Momentary: press and hold [PF2] key to hear the background noise, release the key to return to normal operation.

○ BASIC OPERATIONS

2. Squelch Off: momentarily press [PF2] key to hear the background noise, press [PF2] again to return to normal operation.

● **Note:** The above functions should be set in software.

(((Receiving

When the channel you are operating is called, LED GREEN lights, then you hear the calling from transmitting party.

● **Note:** If your transceiver has set higher squelch level, it may fail to hear the calling.

If current channel has programmed with signaling, you can only hear the call from a same signaling, other call can't be heard. (Please refer to Signaling Combination Setup).

(((Transmitting

According to different setup of monitor function, press and hold the side [PF2] key to monitor for a while to confirm the channel desired is not busy. Then, press and hold [PTT] key to speak into microphone. Hold the microphone about 2.5~5cm from your lips, and then speak into the microphone with your normal voice to get best timbre.

● **Note:** Press [PTT] key, LED lights RED indicating it is transmitting, Release to receive.

(((Side [PF1] Key Function Setup

The Side [PF1] key can realized functions as below:

1. In receiving mode, press to check current voltage.
2. In receiving mode, press and hold to alarm. (you can shut off this function by software)
3. In transmitting mode, press to transmitting selected Tone-pulse signaling.

4. Press this key to power on transceiver, and get into wire cloning mode.

⦿ Side [PF2] Key Function Setup

The Side [PF2] key can realize functions as below:

1. In receiving mode, press to enable monitor.
2. In receiving mode, hold this key and turn selector knob to adjust squelch level.
3. In transmitting mode, press to transmit the selected DTMF, 2TONE, 5TONE signaling.
4. Press this key to power on, and get into background operations setup.
5. Press this key +  key to power on, start to initial setup.

⦿ Switch Among Main Channel, Sub-channel And FM Mode

In Main Channel, Sub-channel or FM mode, press  key to switch between VFO mode and channel mode.

◦ SHORTCUT OPERATIONS

(((Channel Edit

1. In main channel frequency mode or sub-channel frequency mode, enter the frequency and signaling as desired, after pressing **A FUNC** key, the top left corner of LCD displays "☒", then press **C MR**, the channel number twinkling means getting into store/ delete channel mode.
2. Turn selector knob to select the desired channel address to store.
3. Press **A FUNC** key, and then hold **C MR** for 2 seconds, after two "beep" sounds, this channel has been stored.

(((Delete Channel

1. In main channel frequency mode or Sub-channel frequency mode, after pressing **A FUNC** key, the top left corner of LCD displays "☒", then press **C MR**, the channel number twinkling means getting into store/ delete channel mode.
2. Turn selector knob to select the channel which you want to delete.
3. Press **A FUNC** key, and hold **B U/V** key for 2 seconds, the frequency disappear with in two "beep" sounds, the channel has been deleted.

(((Edit Channel Name

When transceiver is in channel name display mode, after pressing **A FUNC** key, the top left corner of LCD displays "☒" press **8 SET** key to get into the channel name program mode of current channel. Turn channel selector to select the desired character, press **B U/V** or **C MR** to move, press **# ENT** confirm and exit when finished program.

(((Sub-channel Switch Between VHF And FM

o SHORTCUT OPERATIONS

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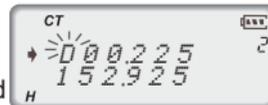
1. In main channel frequency mode / frequency + channel mode / channel name mode, after pressing "☒" key, the top left corner of LCD displays **A FUNC**, and then press **1V/FM** key.
2. When character "FM" appears, it indicates sub-channel is in FM status and can receive signal from FM station.
3. When character "FM" disappears, it indicates sub-channel is in VHF, when enable dual watch function, it will receive signal from VHF(136-174Mhz) band transceiver.
 - **Note:** For AT-3318 VHF transceiver, press **A FUNC** then press **1V/FM** key to switch on/off FM radio, FM radio and main channel dual watch will switch on/off accordingly

(((Add or Cancel DTMF, 2TONE, 5TONE Signaling (Optional)

DTMF, 2TONE and 5TONE signaling are similar to CTCSS / DCS, while DTMF and 5TONE have other special functions, including ANI, PTTID, call all, group call, signal call, alarm, remotely Kill, remotely Stun, Wake up, Tail eliminating, for more information and setup, please refer to the help option in the programming software.

Main channel in frequency mode / frequency + channel mode / channel name mode, after pressing " **A FUNC** " key, the top left corner of LCD displays "☒ " , then press **2 TONE** key. Repeat the operation above, 4 statuses available.

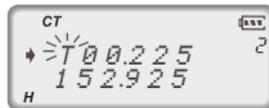
1. When the hundredth position of MHz or the first channel name displays "D", it has DTMF signaling squelch when receive.
Hold **[PTT]** key then press **[PF2]** key to transmit the prestored and selected DTMF signaling.
2. When the hundredth position of MHz or the first channel name displays "T",



SHORTCUT OPERATIONS

it has 2TONE signaling squelch when receive.

Hold [PTT] key then press [PF2] key to transmit the prestored and selected 2TONE signaling.



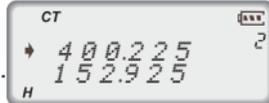
- 3 When the hundredth position of MHz or the first channel name displays "T", it has 5TONE signaling squelch when receive.

Hold [PTT] key then press [PF2] key to transmit the prestored and selected 5TONE signaling.



4. When display current frequency, DTMF, 2TONE, 5TONE signaling are cancelled.

- **Note:** In frequency + channel display mode, or channel name display mode, If operate the above, the status temporarily saved. Please refer to page 30 "Signaling Combination Setup" to setup.



CTCSS / DCS Scan

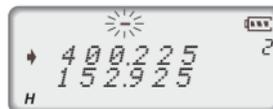
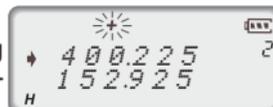
After pressing [A FUNC] key, the top left corner of LCD displays "☐", then press [3T.SCA] to enter CTCSS / DCS scan. When signaling scanned matches the setting of the transceiver, stop for 15 seconds then scan again. Press any keys except [A FUNC] [*S.W] [# ENT] to exit scanning.

- **Note:** This function is invalid when the main channel is in channel display mode or current mode without signaling setup.
Scan CTCSS when the main channel is set to CTCSS, scan DCS when the channel is set to DCS.
Turn selector knob to change the CTCSS / DCS scan direction.

Offset Direction Setup

After pressing **A FUNC** key, the top left corner of LCD displays "☒", then press **4 +/-** to select offset frequency direction.

1. (+) Offset frequency: The transmitting frequency is higher than receiving frequency, when enable reverse function, the receiving frequency is higher than transmitting frequency.
2. (-) Offset frequency: The transmitting frequency is lower than receiving frequency, when enable reverse function, the receiving frequency is lower than transmitting frequency
3. No display: offset frequency direction is closed.



Main channel in frequency mode, frequency + channel mode, channel name mode, after pressing **A FUNC** key, the top left corner of LCD displays "☒", then press **4 +/-** key, choose upward direction (+), downward direction (-) or close offset direction (please refer to offset frequency setup.)

• **Note:** Under channel mode, this function is invalid.

Frequency Scan, Channel Scan or FM Search

After pressing **A FUNC** key, the top left corner of LCD displays "☒", then press **5 SCAN** to enable frequency, scan, channel scan or FM search function.

1. Frequency scan

In main channel, sub-channel or FM frequency mode, frequency scan is valid. This function is to monitor the signal of every communicative frequency point of transceiver "STEP" you have set.

Press any key except **A FUNC** ***S.W** **# ENT → 0** to exit scan.

○ SHORTCUT OPERATIONS

- **Note:** If the transceiver is programmed with PA frequency and PB frequency, in frequency mode (VFO), frequency subsection scan is valid. For more information, please refer to help options in programming software.

2.Channel Scan

In main channel, sub-channel or FM channel mode, this function is to monitor signaling from every channel , press any key except    to exit scan.

3.FM Search

When sub-channel is in FM frequency mode (VFO), FM search is valid. Press any key except    to exit when getting the desired stati.

Note:

- Frequency scan is full band scan, when scanning; it will be increasing to scan according to the "STEP" you have set.
- When scanning channel, the channel which has been scanned skip will not be scanned. It will scan upwards according to channel number when scanning (please refer to Scan Skip)
- When making frequency scan/channel scan you can change the scan direction through turning the selector knob. During scan, when carrier and the signaling is matching to the setup of transceiver, it stays for 15S, and then continues to scan.(please refer to Scan Setup.)
- The step size of FM Search is 100K.

Scan Channel Skip

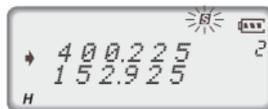
In channel name mode or frequency + channel mode, after pressing  key, the top left corner of LCD displays "☒", then press  . Repeat above operation to setup current channel scan or cancel.

o SHORTCUT OPERATIONS

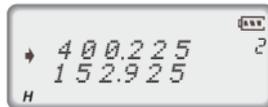
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1. When "S" appears, it indicates the current channel is not scanned.



2. When "S" does not appear, it indicates the current channel will be scanned.



• **Note:** In channel mode or frequency mode, the function is invalid.

Priority Monitor

When the transceiver is working in frequency mode (VFO), it can synchronously detect priority channel signaling.

Priority monitor channel

Enable this function, when the transceiver is working in frequency mode (VFO), it will detect selected channel one time in every 5 seconds.

1. Press **C/MR** key to switch to frequency +channel mode or channel name mode, turn selector knob to choose the channel you want.
2. Press **C/MR** key to switch to frequency mode. (VFO).
3. Press **A/FUNC** key, then press **7 PRIO** to enter frequency and selected channel dual watch.

- When two UHF frequencies displayed in the LCD, one of them with channel number (it is selected monitor channel number). These two UHF frequencies switch to each other every 5 seconds, current available receiving frequency displays in the LCD up row.



o SHORTCUT OPERATIONS

- When priority channel receives a match signaling, it stays for 10 seconds. At this time if press PTT, dual watch will stop and communicate to other party by current receiving frequency.

4. Press any key except **A FUNC** ***S.W** **# ENT** **# ← 0** to exit.

Priority Monitor Channel Scan

Enable this function, when the transceiver is working in frequency mode (VFO), it will detect the scanning channel in every 5 seconds.

1. Press **C MR** key to switch to frequency + channel mode or channel name mode.

2. Press **A FUNC** key then press **5 SCAN** to start scanning.

3. Press **A FUNC** key then press **7 PRIO** to enter frequency and channel scan dual watch.

- Two UHF frequencies are displayed in the LCD, one of them with channel number. These two UHF frequencies switch to each other every 5 seconds, then channel number accumulates after every switch. And current available receiving frequency displays in the LCD up row.

- When priority channel receives a match signaling, it stays for 10 seconds. At this time if press [PTT], dual watch will stop and communicate to other party by current receiving frequency.

Press any key except **A FUNC** ***S.W** **# ENT** **# ← 0** to exit.



(((Switch High / Low Power

◦ SHORTCUT OPERATIONS

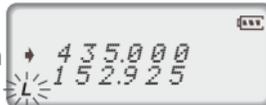
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After pressing **A** FUNC key, the top left corner of LCD displays "☒", then press **9** HI/LO to choose high power/ low power.

When it shows "H" on the lower left corner of screen, it indicates you have chosen high power to transmit.

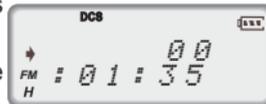
When it shows "L" on the lower left corner of screen, it indicates you have chosen low power to transmit.



⌘ Stopwatch

After pressing **A** FUNC key, the top left corner of LCD displays "☒", then press ***S.W** to get into Stopwatch display.

1. Press ***S.W** to start measuring time, press ***S.W** again to stop measuring time
2. Press **#ENT** to pause measuring time, and press ***S.W** again to continue measuring time.
3. Press **D** CLR to exit.



⌘ DTMF Code Searching And Setup

After pressing **A** FUNC key, the top left corner of LCD displays "☒" then press **0** DTMF key, it displays the current group DTMF data. (16 groups in total)

1. Turn selector knob to select the desired group and DTMF data, if press **PTT** it will transmit the desired group DTMF data. If the desired group has not programmed DTMF data, it displays the current group number and "EMPTY"



SHORTCUT OPERATIONS

- If the current group displays "EMPTY", press **A FUNC** key, the top left corner of LCD displays "✉", press and hold **0 DTMF** key for 2 seconds to get into DTMF setup, then you can enter the DTMF data you need by keyboard.
- After setting up, press side **[PF2]** key to transmit, then save and exit.

☞ Manually Transmitting DTMF Signaling

Method 1: hold **[PTT]** key and enter the number you need in keyboard.

Method 2: hold **[PTT]** key and enter the first number, release **[PTT]** key, the transceiver will stay in transmitting situation in 2 seconds and you can keep on entering the numbers you need in keyboard.

You do not need to keep holding **[PTT]** key to enter. When transmitting DTMF frequency, you can monitor the frequency by the sounds making by the loudspeaker.

☞ Remotely Kill/Waken

Transmit a certain code (the killing code of the opposing party), it will kill the opposing transceiver, at this time all keys and functions will not work provisionally. When remotely killed, the LCD displays "KILL".

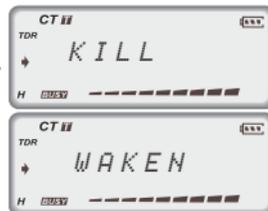
Send killing code of opposing party + "# " to waken the transceiver.

For example: send 2267 code to kill, and send 2267# to waken. The LCD displays "WAKEN" when it wakes up.

- Note:** Killing code shall be set by programming software with 14 digits utmost.

☞ Remotely Stun /Waken

Transmit a certain code (the opposing party stunning code), it will stun the opposing transceiver,



○ SHORTCUT OPERATIONS

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at this time all keys and functions except receiving will not work provisionally.

When remotely stunned, the LCD displays "STUN".

Send stun code of opposing party + "#" to waken the transceiver.

For example: send 2268 code to stun, and send 2268# to waken stun. The LCD displays "WAKEN" when it wakes up.

- **Note:** When wakes up from remotely kill or stun, restart the transceiver and it can be operate normally.



(((Key Lock

To avoid undesired operation, you can use the Key lock function.

When transceiver is in standby mode, After pressing  key, the top left corner of LCD displays "☑" then press and hold  key for 2 seconds to start key locking, repeat to unlock the transceiver.

- **Note:** When key locked, all keys except PTT / PF1 / PF2 / A are all invalid.

o CHANNEL OPERATIONS

Channel operations temporarily changed the functions of current channel, when power off or channel has been changed, the relevant setup will be deleted automatically.

In frequency+channel or frequency mode, operate as below:

1. After pressing **A** **FUNC** key, the top left corner of LCD displays "☑" then press **8 SET** key to enter function menu.
2. Press **B** **U/V** / **C** **MR** key to select the menus to be set.
3. Turn selector knob to choose the selected content.
4. Press **D** **CLR** key or **# ENT** key to confirm and exit the setup.



- **Note:** Under channel mode, the display of transceiver is channel number, press **A** **FUNC** and then press **8 SET** it is invalid; under channel name mode, the display of transceiver is channel name, press **A** **FUNC** and then press **8 SET** to program the current channel name.

(((CTCSS / DCS Encode Setup

1. After pressing **A** **FUNC** key, the top left corner of LCD displays "☑" then press **8 SET** key to enter function menu
2. Press **B** **U/V** / **C** **MR** key to choose NO. 01 option. LCD will display " T-CDC "
3. Press **1 V/FM** key to choose CTCSS, DSC or OFF, when DCS signaling is selected, press ***S.W** key to choose positive and inverse code.
4. Turn selector knob to choose the desired CTCSS / DCS encode signaling.
5. **CTCSS:** 62.5Hz-254.1Hz, 51 groups utmost. Default: 62.5 Hz.
6. **DCS:** 000N-777I, 1024 Groups, N is positive code, I is inverted code,
7. **Default:** 023N



◦ CHANNEL OPERATIONS

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⌘ CTCSS/DCS Decode Setup

When this function is enabled, you can ignore (can not hear) other unrelated call in the same frequency.

1. After pressing **A FUNC** key, the top left corner of LCD displays "☒" then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C MR** key to choose NO.02 option. LCD will display "R-CDC "
3. Press **1 V/FM** key to choose CTCSS, DSC or OFF, when DCS signaling is selected, press ***S.W** key to choose positive code or inverse code.
4. Turn selector knob to choose the desired CTCSS/DCS decode signaling
5. CTCSS: 62.5Hz-254.1Hz, 51 groups . Default: 62.5 Hz.
6. DCS: 000N-777I, 1024 Groups, N is positive code, I is inverted code.
7. Default: 000N



⌘ Choose To Transmit 2TONE

1. After pressing **A FUNC** key, the top left corner of LCD displays "☒" then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C MR** key to select NO. 03 function option, the LCD displays "2TONE"
3. Turn selector knob to select the desired transmitting 2TONE group, press **[PTT]** key will transmit the current selected group.
4. In total 00-99 groups.
5. Default:00



○ CHANNEL OPERATIONS

- **Note:** 2TONE setup should be programmed by software, the transceiver can only display the programmed group.

☞ Choose To Transmit 5TONE

1. After pressing **A FUNC** key, the top left corner of LCD displays "☐" then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C MR** key to select NO. 04 function option, the LCD displays "5TONE".
3. Turn selector knob to select the desired transmitting 5TONE group, press [PTT] key will transmit the current selected group.
4. In total 00-99 groups.
5. Default: 00.



- **Note:** 5TONE setup should be programmed by software. The transceiver can only display the programmed group.

☞ Signaling Combination Setup

1. Press **A FUNC** key, then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C MR** key to choose NO.05 function option, the LCD will display "SIGNAL".
3. Turn selector knob to select the desired signaling combination.
4. Displaying "SQ" indicates as long as it receives a matching carrier to transceiver, you can hear the calling from caller.



o CHANNEL OPERATIONS

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5. Displaying "**CT/DCS**" indicates simultaneity it receives a matching carrier to transceiver and a matching CTCSS or DCS, you can hear the calling from caller.



6. Displaying "**TONE**" indicates simultaneity it receives a matching carrier to transceiver and a matching DTMF, 2TONE or 5TONE, you can hear the calling from caller.



7. Displaying "**CT & TO**" indicates simultaneity it receives a matching carrier to transceiver and a matching CTCSS or DCS, and simultaneity a matching DTMF, 2TONE or 5TONE; you can hear the calling from caller.



8. Displaying "**CT/TO**" indicates simultaneity it receives a matching carrier to transceiver and simultaneity receive any one of a matching CTCSS/DCS or DTMF/2TONE/ 5TONE signaling, you can hear the calling from caller.



Offset Frequency

This function works through repeater which means the repeater receives signal by one frequency, and transmit in another frequency, the offset between two frequencies is called offset frequency.

◦ CHANNEL OPERATIONS

1. After pressing **A** **FUNC** key, the top left corner of LCD displays "☑" then press **8 SET** key to enter function menu.
2. Press **B** **UTV** / **C** **MR** key to select NO. 06 function option, the LCD displays "OFFSET".
3. Turn selector knob to select the desired offset frequency.
4. Offset frequency range: 00-69.995 MHz.
5. Default: 0.6 MHz



(((Wide/ Narrow Band Setup

Set up the communication by wide band or narrow band in accordance with different situation in different country.

1. After pressing **A** **FUNC** key, the top left corner of LCD displays "☑" then press **8 SET** key to enter function menu
2. Press **B** **UTV** / **C** **MR** key to select NO.07 function option, the LCD displays "W/N".
3. Turn selector knob to select the desired setup.
Option: 25K (Wide band),20K(Middle band), 12.5K(Narrow band)
4. Default: 25K.



(((Frequency Reverse

When this function is enabled, transmitting and receiving frequency will be reversed, transmitting frequency turns to receiving frequency, and set signaling will also reverse.

1. After pressing **A** **FUNC** key, the top left corner of LCD displays "☑" then press

○ CHANNEL OPERATIONS

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1. Press **8 SET** key to enter function menu.
 2. Press **B U/V** / **C M/R** key to select NO. 08 function option, the LCD displays "REV".
 3. Turn selector knob to select the desired setup.
ON: enable frequency reverse
OFF: disable frequency reverse
 4. Default: OFF
- **Note: This function is invalid when talk around function enables.**



(((Talk Around

When this function is enabled, the transceiver will transmit by receiving frequency.

1. After pressing **A FUNC** key, the top left corner of LCD displays "☐" then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C M/R** key to select NO.09 function option, the LCD displays "TALKAR".
3. Turn selector knob to select the desired setup.
TX=RX: talk around enables
OFF: talk around disables
4. Default: OFF



(((Frequency Step Size Setup

Only in frequency mode, "frequency step size" is enabled.

Entry frequency or scanning frequency is all restricted by frequency step size.

◦ CHANNEL OPERATIONS

1. After pressing **A FUNC** key, the top left corner of LCD displays "☒" then press **8 SET** key to enter function menu
2. Press **B U/V** / **C MR** key to select NO.10 function option, the LCD displays "STEP".
3. Turn selector knob to select the desired frequency step size.
STEP Optional: 5K/6.25K/10K/12.5K/20K/25K/30K/50K.
4. Default: 20K.



⦿ TX Off Setup

1. After pressing **A FUNC** key, the top left corner of LCD displays "☒" then press **8 SET** key to enter function menu.
2. Press **B U/V** / **C MR** key to select NO.11 function option, the LCD displays "TX".
3. Turn selector knob to select the desired setup.
ON: Transmitting ON
OFF: Transmitting OFF
4. Default: ON



⦿ Compander (Reduce Noise, Improve Communication Quality)

Enable this function to reduce noise, especially in long distance communication.

1. After pressing **A FUNC** key, the top left corner of LCD displays "☒" then press **8 SET** key to enter function menu.



◦ CHANNEL OPERATIONS

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2. Press **B** U/V / **C** MR key to select NO.12 function option, the LCD displays "COMP".
3. Turn selector knob to select the desired setup.
ON: Enable compander
OFF: Disable compander
4. Default: OFF



(((Scrambler Setup (Encryption)

This function is a special voice processing to make the transceiver in the same frequency hearing disorderly pronunciation only, let the communication confidentiality.

1. After pressing **A** FUNC key, the top left corner of LCD displays "☒" then press **8** SET key to enter function menu.
2. Press **B** U/V / **C** MR key to select NO.13 function option, the LCD displays "SCR".
3. Turn selector knob to select the desired setup.
1-10: 10 groups of fixed scramble way for choice
USER: 1 group customized scramble way
OFF: Disable scrambler
4. Default: OFF



With this function available, only the party who has the same group of scramble way or the same customized scramble way can communicate normally. (Customized scramble way can only be programmed in software.)

o BACKGROUND OPERATIONS

In any mode, background operations setup can change and permanently save the newest setup in the radio. The function menus are operated as below:

1. Press and hold [PF2] key, power on transceiver to enter background operations menu.
2. Press **B** / **C** key to select desired function option.
3. Turn selector knob to select the desired setup.
4. Press **D** key or **#** key confirm and exit.

Voice Prompt

The prompting tone provides confirmation of entry, error status or malfunctions of the transceiver. The transceiver has three prompting tone for choice: Chinese annunciation, English annunciation and Beep sound.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **C** key to select NO.01 function option, the LCD displays "VOICE"
3. Turn selector knob to select the desired tone.

BEEP: Beep sounds

ENG: English annunciation

CHN: Chinese annunciation

OFF: Prompting tone disables

4. Default: BEEP

- **Note:** We recommend you leave this function ON in order to detect wrong operations and malfunctions.



o BACKGROUND OPERATIONS

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⌘ Time-Out Timer

The purpose of the Time-out Timer is to prevent any caller from using a channel for an extended period of time. If you continuously transmit for a period of time that exceeds the programmed time, the transceiver will stop transmitting and an alert tone will sound.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **C** / **U/V** / **M/R** key to select NO.02 function option, the LCD displays "TOT"
3. Turn selector knob to select the desired setup.
1-30MIN: Total 30-minute timer for choice, the space for every level is 1 minute
OFF: Disable TOT
4. Default: OFF



⌘ Voice Operated Transmission (VOX) Setup

VOX operation allows you to transmit hands-free. You don't need to press [PTT] key to transmit only through voice.

This function only be available with supported earphone inserted.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **C** / **U/V** / **M/R** key to select NO.03 function option, the LCD displays "VOX".
3. Turn selector knob to select the desired setup.



○ BACKGROUND OPERATIONS

1-10: The transceiver has 10 levels of VOX, Higher VOX gain level needs higher volume.

OFF: VOX disable

4. Default: OFF.



(((Voice Operated Transmission (VOX) Delay Time Setup

If transceiver backs to receiving mode after transmitting at once, the tail of transmitting may not be sent correctly. To avoid this, you can set a proper delay time.

1. Press and hold [PF2] key, power on transceiver to enter function menu

2. Press **B** / **U/V** / **C** / **M/R** key to select NO.04 function option, the LCD displays "VDELAY"

3. Turn selector knob to select the desired setup.

0.3S-3 S, total 28 levels of delay time to choose, the space for every level is 0.1S

4. Default: 0.3 second.



(((Auto Power-Off

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press **B** / **U/V** / **C** / **M/R** key to select NO.05 function option, the LCD displays "POWER".

3. Turn selector knob to select the desired setup.

30MIN: Automatic Power-Off after 30 minutes

1HOUR: Automatic Power-Off after one Hour



○ BACKGROUND OPERATIONS

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2HOUR: Automatic Power-Off after two Hour

4. Default: OFF

- **Note:** After automatic power-off, the transceiver shall power on again to revert normal use; otherwise, the transceiver will remain sleeping status.



(((Busy Channel Lock-Out

When activated BCL, you can not transmit in busy channel, BCL prevents you from interfering with other parties who may be using the same channel that you selected. Pressing the [PTT] while the channel is in use will cause your transceiver to emit an alert tone and return to receive mode.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **C** / **U** / **V** / **M** / **R** key to select NO.06 function option, the LCD displays "LOCK"

3. Turn selector knob to select the desired setup.

REPEAT: REPEAT LOCK, transmitting is inhibited when current channel receives a matching carrier with different CTCSS / DCS.

BUSY: CARRIER BUSY LOCK, transmitting is inhibited when current channel receives a matching carrier.

OFF: BCL disables

4. Default: OFF



○ BACKGROUND OPERATIONS

(((DTMF Transmitting Time Setup

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **U/V** / **C** / **MR** key to select NO.07 function option, the LCD displays "DTMF"
3. Turn selector knob to select the desired setup.

50MS: Every audio signal of DTMF transmits 50MS and pauses 50MS

100MS: Every audio signal of DTMF transmits 100MS and pauses 100MS

200MS: Every audio signal of DTMF transmits 200MS and pauses 200MS

300MS: Every audio signal of DTMF transmits 300MS and pauses 300MS

500MS: Every audio signal of DTMF transmits 500MS and pauses 500MS

4. Default: 100MS

(((UHF Squelch Level Setup

This function keeps speaker quiet when no receiving signal.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press **B** / **U/V** / **C** / **MR** key to select NO.08 function option, the LCD displays

"UHF SQ"



BACKGROUND OPERATIONS

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3. Turn selector knob to select the desired UHF Squelch level.

00-10: total 11 UHF Squelch levels. "00" is the lowest level.

4. Default: 04

- **Note:** Press and hold [PF2] key, and then turn channel selector also can choose the desired squelch level.
- **Note:** If the squelch level is too high, the transceiver will fail to get weak signal; If the squelch level is too low, the background noise will appear easily.



Scan Dwell Time Setup

This transceiver has 4 kinds of scan remain time for choice.

1. Press and hold [PF2] key, power on transceiver to enter function menu

2. Press **B** / **C** / **U/V** / **M/R** key to select NO.09 function option, the LCD displays "SCAN"

3. Turn selector knob to select the desired setup

5ST: Remain for 5 seconds when scan matching signal, then continue to scan

10ST: Remain for 10 seconds when scan matching signal, then continue to scan

15ST: Remain for 15 seconds when scan matching signal, then continue to scan

2SP: Continue to scan after signal disappears 2 seconds

4. Default: 15ST



○ BACKGROUND OPERATIONS

⌘ Function Key Icon Dwell Time Setup

This transceiver has 5 kinds of Function Key Icon Dwell Time for choice, when function key icon "☒" displays, user have shortcut function setup continuously. Don't need to press the function key again and then set up new function.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press  /  key to select NO.10 function option, the LCD displays "FTIME".

3. Turn selector knob to select the desired setup.

FUNCT: When function operating finishes, function key mark disappears.

1SEC/2SEC/3SEC: When function operating finishes, function key marks remain for 1SEC/2SEC/3SEC then disappears.

ALWAYS: When function operating finishes, function key marks ALWAYS display, repress  key it will disappear.

4. Default: FUNCT.



⌘ Backlight On/Off Mode Setup

This transceiver has three backlight modes: Permanent backlight, Permanent off and Automatic backlight for choice.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press  /  key to select NO.11 function option, the LCD displays "LIGHT".

3. Turn selector knob to select the desired setup.



o BACKGROUND OPERATIONS

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OFF: Permanent off

ON: Permanent backlight

AUTO: When enable this function, backlight remains for a while then quenches

4. Default: AUTO



(((**Backlight Color Setup**

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press **B** / **C** / **U/V** / **M/R** key to select NO.12 function option, the LCD displays "COLOR"

3. Turn selector knob to select the desired color.

BLUE: Blue backlight

ORG: Orange backlight

PUR: Purple backlight

4. Default: PUR

● **Note:** When choose blue as receiving mode backlight color, press [PTT] key to transmit, the color turns to purple.

When choose orange as receiving mode backlight color, press [PTT] key to transmit, the color turns to blue.

When choose purple as receiving mode backlight color, press [PTT] key to transmit, the color turns to orange.



◦ BACKGROUND OPERATIONS

(((Display Mode Setup

This transceiver has three display modes: Channel number display, Channel display for you to choose.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press  /  key to select NO.13 function option, the LCD displays "DSP"
3. Turn selector knob to select the desired setup.

FREQ: channel frequency + channel number display

CH: channel number display.

NAME: Channel name+ Channel number display

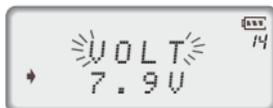
4. Default: FREQ

- **Note:** When display mode in programming software is set to channel mode and locked, this function will auto-hide. (Default channel no lock.)



(((Current Battery Voltage Display

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press  /  key to select NO.14 function option, the LCD displays "VOLT", the value displayed is the current battery voltage.



(((Choose Tone-pulse Frequency

This function is used to start the repeater; it needs a certain intensity of Tone-pulse single to start the

○ BACKGROUND OPERATIONS

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sleep repeater. Usually when repeater has started, repeater system does not require this Tone-pulse.

This transceiver has 4 Tone-pulse Frequency for choice.

In transmitting status, press side [PF1] key to transmit the selected Tone-pulse frequency.

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press **B** / **C** / **U/V** / **M/R** key to select NO.15 function option, the LCD displays "TBST"

3. Turn selector knob to select the desired setup.

1000Hz: Tone-pulse frequency is 1000Hz

1450Hz: Tone-pulse frequency is 1450Hz

1750Hz: Tone-pulse frequency is 1750Hz

2100Hz: Tone-pulse frequency is 2100Hz

4. Default: 1750Hz



(((ANI Function Setup

This transceiver can realize ANI function through DTMF signaling or 5TONE signaling. Enable this function to realize DTMF ANI function, when receiving a DTMF ANI signaling, your transceiver displays the caller's ID.

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press **B** / **C** / **U/V** / **M/R** key to select NO.16 function option, the LCD displays "ANI".

3. Turn selector knob to select the desired setup.

○ BACKGROUND OPERATIONS

OFF: DTMF ANI function OFF.

ON: DTMF ANI function on.

4. Default: OFF

- **Note:** Use software to set up ANI function of 5TONE.
Use software to set up DTMF ANI function.



(((Battery Save Setup

This transceiver has battery save function to extend standby time. When a carrier is received or an operation is performed, battery save turns OFF.

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press  /  key to select NO.17 function option, the LCD displays "SAVE"

3. Turn selector knob to select the desired battery save proportion.

OFF: battery save function OFF.



1:2: operative mode and saving battery mode are in the ratio 1:2.

1:3: operative mode and saving battery mode are in the ratio 1:3.

1:5: operative mode and saving battery mode are in the ratio 1:5.

○ BACKGROUND OPERATIONS

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1:8: operative mode and saving battery mode are in the ratio 1:8



AUTO: Automatically adjust operative mode and saving battery mode ratio

4. Default: 1:2

- **Note:** The power save ratio is bigger; the battery consumes is less when waiting, but the transceiver may not able to receive the front part of signal.



(((UHF, VHF Dual Watch Setup

The transceiver can be set to UHF and VHF dual watch mode. In this mode, when VHF receives signal, if UHF is also receiving signal, the transceiver will auto switch to UHF. When the main channel signal disappears or [PTT] key released, it will automatically return to VHF receiving status.

1. Press and hold [PF2] key, power on transceiver to enter function menu.

2. Press  /  key to select NO.18 function option, the LCD displays "TDR"

3. Turn selector knob to select the desired setup.

ON: Dual watch VHF and UHF enables

OFF: Dual watch disables

4. Default: OFF



◦ BACKGROUND OPERATIONS

- **Note:** The transceiver automatically stays in Dual Watch status when starting FM radio. Enabling this function will increase battery power consumption, 3318 VHF transceiver does not have this function.

(((Resume Factory Default

In the event of wrong operation of the transceiver because of wrong operation or setup, you can use this function to restore the setup as factory default.

1. Press and hold [PF2] key, power on transceiver to enter function menu.
2. Press  /  key to select NO.19 function option, the LCD displays "RESTOR"
3. Turn selector knob to select the desired setup.
FACT?: restore factory default

SETUP?: restore initialization setup

OFF: No Restore

4. Press  key to confirm the selection.



(((Cable Cloning

With this function, you can copy the programming data of the transceiver to another one; it can copy parameters and memory programming data to another transceiver.

Connection: use CP01 wire cloning cable (optional accessory) to connect main transceiver with sub-transceiver through reading/ writing programmable interface.

Setup: main transceiver party

1. Hold [PF1] side key to power on, LCD displays "**CLONE**", main transceiver enters into copy mode.
2. Press [PTT] key, LCD displays "**CLONE XX**", **XX** means the transmitted data quantity.
3. After data copies completely, LCD displays "**CLONE OK**".
4. Main transceiver stays in this mode preparing to next copy, restart main transceiver to exit copy mode.

Setup: sub-transceiver party.

1. When receiving data, LCD displays "**CLONE XX**", **XX** means the received data quantity.
2. After data received sub-transceiver returns to normal mode.
3. Power off, take over cable line and link to another sub-transceiver which you want to copy.

If data can not transfer successfully, power off main transceiver and sub-transceiver, check the cable line and repeat the process.

(((Communication Note

This function is used to receive ANI call matching the communication note, and displays the corresponding name of the code in LCD. It is similar to mobile phone communication note. You can set 15 groups of 5TONE note and DTMF note each. You only need to set the opposing party ID with the corresponding name. For more information, please refer to the communication note option in software.

○ AUXILIARY FUNCTIONS

(((Start Programming Software (Base On Windows XP)

1. Double click " QPS3318U setup. exe " or "QPS3318V setup .exe", install as indication.
 2. Click START menu in computer, under "ALL PROGRAMS" menu, choose and click " USB To Com port" in QPS3318 program , install " USB To Com port "drivers by indication.
 3. Connect the PC01 USB Programming cable to USB port in PC with transceiver.
 4. Double click "QPS3318U " or "QPS3318V Setup " short cut, choose serial COM port as indicated then click OK to start programming software. (You shall install software before connecting the USB cable line.)
- **Note: This software has product identify system. So when firstly installing the software, you have to connect the products, otherwise, you can not start the software.**

TECHNICAL SPECIFICATIONS

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Technical Specifications

General	
Frequency Range*	VHF:136-174MHz 245-246MHz UHF:400~470MHz
Channel Capacity	128 channels
Channel Spacing	25KHz (Wide Band) 20KHz (Middle Band) 12.5K (Narrow Band)
Phase-locked Step	5KHz, 6.25KHz
Operating Voltage	7.4V DC $\pm 20\%$
Battery Life	More than 12 Hours (1300mAh) by 5-5-90 work cycle
Frequency Stability	± 2.5 ppm
Operating Temperature	-20~+55°C
Weight	210g (with battery pack, antenna)
Dimension	240x56x30mm (with battery pack, antenna)

* **Note:** AT-3318 VHF transceiver is with FM radio receiver (76-108MHz).
AT-3318 UHF transceiver is with FM radio receiver (76-108MHz) and VHF receiver (136-174MHz).

Receiving Part (ETSI EN 300 086 standard test)		
	Wide band	Narrow band
Sensitivity (12dB SINAD)	$\leq 0.25\mu\text{V}$	$\leq 0.35\mu\text{V}$
Adjacent Channel Selectivity	$\geq 70\text{dB}$	$\geq 60\text{dB}$
Intermodulation	$\geq 65\text{dB}$	$\geq 60\text{dB}$
Spurious Rejection	$\geq 70\text{dB}$	$\geq 70\text{dB}$
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)
Hum & Noise	$\geq 40\text{dB}$	$\geq 36\text{dB}$
Audio Distortion	$\leq 5\%$	
Audio Power Output	500mW (10%)	
Transmitting Part (ETSI EN 300 086 standard test)		
	Wide band	Narrow band
Power Output	5W/1W VHF	4W/1W UHF
Modulation	16K Φ F3E	11K Φ F3E
Adjacent Channel Power	$\geq 70\text{dB}$	$\geq 60\text{dB}$
Hum & Noise	$\geq 40\text{dB}$	$\geq 36\text{dB}$
Spurious Emission	$\leq -36\text{dB}$	$\leq -36\text{dB}$
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)
Audio Distortion	$\leq 5\%$	

o TROUBLESHOOTING GUIDE

Problem	Corrective Action
No power	A.The battery pack may be exhausting. Recharge or replace the battery pack. B.The battery pack may not be installed correctly. Remove the battery pack and install it again C.The power switch is broken; send it to local dealers to repair. D.Battery touch is broken; send it to local dealers to repair.
Unlocked alarm	<ul style="list-style-type: none"> • Incorrect written data, please rewrite.
Battery power dies shortly after charging	<ul style="list-style-type: none"> • The battery pack life is finished. Replace the battery pack with a new one.
The Tranceiver can't scan.	<ul style="list-style-type: none"> • The channels are not in scan list (set by professional staff).
All band noisy after programmed	<ul style="list-style-type: none"> • Turn on squelch when programmed. Non-professionals are advised not to adjust this function.
Regular "DA DA DA" sounds after programmed.	<ul style="list-style-type: none"> • Error programmed, the frequency range or selected model do not match the tranceiver.
No sound after using microphone for a while	<ul style="list-style-type: none"> • Earphone jack is broken. Please contact with local dealers to repair
Communication distance becomes short, and become low sensitivity	A.Check whether the antenna is in good condition and the antenna base do not come adrift. B. Antenna connector is broken or with sundries C.Whether it has set in low power output. (Please contact with local dealers to repair.)

o TROUBLESHOOTING GUIDE



Problem	Corrective Action
Cannot talk to or hear other members in your group	A.Different frequency or channel, please change it. B.Different CTCSS / DCS / DTMF / 2TONE / 5TONE C.Out of communication range.
Can not power on or frequent power-off	• Check whether the battery touch is out of sharp or broken
The other communicating party gets low or intermittent receiving sound	• Check whether the MIC is stoppage. Otherwise, please contact with local dealers to repair.
Intermittent receiving with big noise	• Out of communication range or obstruct by tall buildings or in basement. • 450 filter is broken, Please contact with local dealers to repair.
Loudspeaker become lower or with "ka ka" sound after using a certain time	• Check whether the loudspeaker is broken, Iron powder or sundries is in the loudspeaker. Please contact with local dealers to repair.
Receive voice from the other party but can not transmit	• Check [PTT] key.
Receiving with green light but no sound	• Low volume, please clockwise to turn on • Loudspeaker is broken, please contact with local dealers to repair. • Earphone jack is broken, please contact with local dealers to repair. • Volume switch is broken

o ATTACHED CHART

Continuous Tone Coded Squelch System(CTCSS) Frequency Chart

1	62.5	12	94.8	23	136.5	34	177.3	45	218.1
2	67.0	13	97.4	24	141.3	35	179.9	46	225.7
3	69.3	14	100.0	25	146.2	36	183.5	47	229.1
4	71.9	15	103.5	26	151.4	37	186.2	48	233.6
5	74.4	16	107.2	27	156.7	38	189.9	49	241.8
6	77.0	17	110.9	28	159.8	39	192.8	50	250.3
7	79.7	18	114.8	29	162.2	40	196.6	51	254.1
8	82.5	19	118.8	30	165.5	41	199.5		
9	85.4	20	123.0	31	167.9	42	203.5		
10	88.5	21	127.3	32	171.3	43	206.5		
11	91.5	22	131.8	33	173.8	44	210.7		

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