

AnyTone



ISO9001
ISO14001



STANDBY 7 Days

Cool Smart, 5W

AT-928

TWO-WAY RADIO

INSTRUCTION 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 introduces innovative DSP (Digital Signal Processing) technology and highly integration. It also designs with professional multi- function, best stability and great reliability.

Exterior clean lines, compact body, smart, high power (5W), standby for 7days, it is a fashion and cost-effective transceiver and great suit for instant messaging. Let you enjoy the instant messaging at ease. It is of unique and innovative functions, such as, oscillation and chord rings prompt missed calls, voice prompt battery capacity, jacklight and optional high-fidelity earphones fitted for using in Hotels, Amusement buildings, Emporium, Super shopping center, Estate management and other trades. Particularly in the noisy surroundings, oscillation & chord rings prompt missed calls and high-fidelity earphones are of excellent practicality. Apart from these, the radio has long-distance anti-theft alarming, which makes it a good option for simple alarm device in vehicles.

SAFETY INFORMATION FOR USER

AnyTone transceiver is excellent designed with advanced technology. Please observe the following precautions to perform your obligation, prevent personal injury and transceiver damage.

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 damage.
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 recommend transmitting for 1 minute then receiving for 4 minutes. Continuous transmitting for long time or working in high power will heat the back of the 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.

**User Manual Applied to: AT-928 UHF FM Transceiver
VHF FM Transceiver
Programming Software: QPS928**

CAUTIONS:

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

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• UNPACKING

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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	QA06V/QA06U	1
Li-ion Battery	QB-30L	1
Charger	QBC-30L	1
AC Adaptor	QPS-01	1
Belt Clip	BC06	1
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• STANDARD ACCESSORIES/OPTIONAL ACCESSORIES

Standard Accessories



Antenna
QA06V (136-174MHz) or
QA06U (400-480MHz) etc



Li-ion Battery
(1300mAh) QB-30L



Charger
(QBC-30L)



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



Belt Clip
(including screws) BC06



Instruction Manual

NOTE:

For frequency band of antenna, please refer to label indicated in the bottom of the antenna

Optional Accessories



Programming Cable
PC04



Earphone
QHS04



Programming Software
QPS928



Spare Li-ion Battery
(2200mAh)QB-31L



Alarm Cable A
(be used with cable B)
(QL-01(A))



Alarm Cable B
{QL-02(B)}




Hand Strap
GS01

(((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 repeatedly 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 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  it means it is 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 before 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.

○ BATTERY INFORMATION

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

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 Store the Battery

1. Keep 50% electro-discharging condition.
2. Keep the battery in cool and dry area.
3. Keep the battery away from the heat producer and direct 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 it into fire, it may also cause explosion.

■ To Charge the Battery or the Transceiver via Charger

You can only charge the battery and the transceiver separately, but also can charge them at the same time.

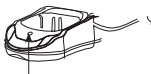
1. Plug the AC adaptor into the AC outlet socket, and then plug the cable of AC adaptor into the jack located on the rear of the charger.

Working Indicator-----Red

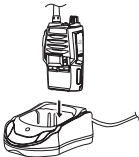
Charging Indicator-----Green

• BATTERY INFORMATION

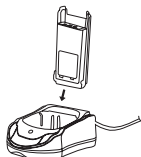
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Working Indicator
Charging Indicator



Transceiver Charge



Battery Charge

2. Slide the Li-ion battery or transceiver with battery pack into the charger.
- A. Make sure the battery pack terminals are in contact with the charging terminals well.
- B. LED displays RED in the charging process.
3. When the battery finishes charging, LED displays Green.

NOTE:

It takes approximately 4 hours to fully charge battery and transceiver meanwhile. And charging time depends on the left electricity for battery usage. Do not keep the battery full charged in the charger for a long time because over charge can decrease the battery cycle life and its performance.

• INSTALLATION & CONNECTION

(((Installing / Removing the Battery

■ Installing the Battery Pack

Match the battery with the battery contact plate of the transceiver, press the battery and push it upward until it is fully in the battery groove.



■ Removing the Battery Pack

1. Push the battery as "▼" direction .
2. Slide the battery groove cover downward and remove it.



(((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.



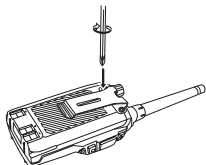
(((Installing / Removing the Belt Clip

■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



(((Installing the External Speaker/ Microphone (Optional)

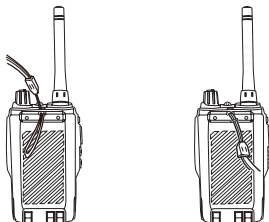
Uncover the MIC-SP jack and insert the optional QHS02 speaker/microphone plugs into the MIC-SP jack.

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



(((Installing/ Removing the Hand Strap (Optional)

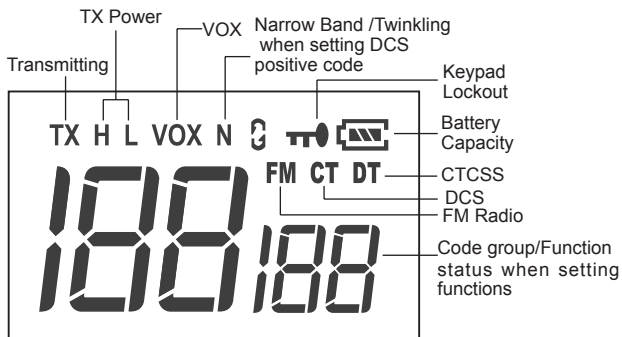
Slide the loop of the hand strap through the eyelet on the upper rear of the transceiver; pull the entire hand strap through the loop to secure the hand strap in place and lastly tighten the hand strap.




◦ GETTING ACQUAINTED

(((LCD Display Screen

On the screen, icons for the optional functions are displayed on the screen. It helps a lot when you forget the functions settings.



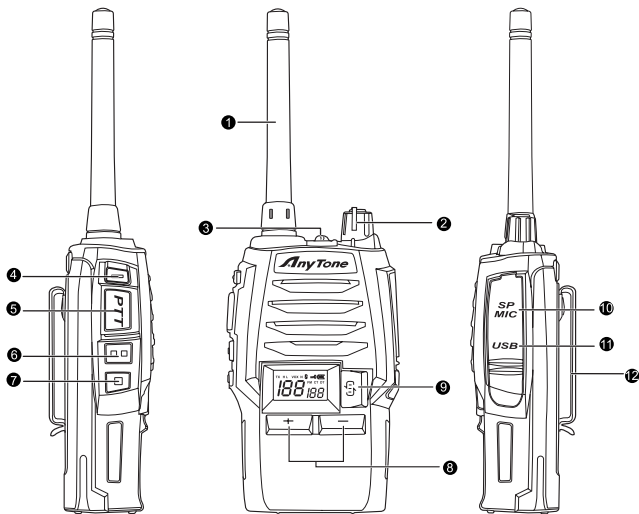
 Battery capacity indicator (Full)

 Battery exhaust ,please change battery or recharge

  Left battery capacity

• GETTING ACQUAINTED

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◦ GETTING ACQUAINTED

1. Antenna

2. Power / Volume Switch:

Turn clockwise to switch the transceiver on, while anticlockwise to switch off the transceiver. After switching on the transceiver, turn clockwise to increase the volume and anticlockwise to decrease the volume.

3. Jacklight

Under the standby condition, press emergency alarm key to lighten the jacklight and repeat above actions to close the jacklight.

4. Emergency Alarm Key

Press it to open or close jacklight.

Press it for over 3 seconds to start alarm function.

Press and hold it to switch on/off the transceiver to enable/disable the Keypad lockout function.

5. PTT Key

When you are making a call, please press and hold this key to speak into the microphone. Release to receive.



6. PF1 Key

It can realize different functions by programming.



7. PF2 Key

It can realize different functions by programming.

8. / Key

In function setting, press this button to adjust channel or function, and long press can speed up the operation. In FM radio mode, press /  to search channel.

9. Function key:

Press this button to choose functions, using with /  to set the function as you need.

10. Additional Microphone / Loudspeaker Jacks

11. Programming Cable Jack/ Outlet Alarm Cable Jack

12. Belt Clip

(((Backlight Status and Beep Voice Prompt

Warning on low voltage	Voice a low voltage beep at intervals of 30 seconds
Transmission	Backlight lightens for 10s and stop
Receive	Backlight lightens all the time
Key Operation	Voices "DU" into any function, "DU DU" exit any function

((([PF1]&[PF2] Key Default

Press [PF1]	Battery Capacity Inquiry
Press [PF2]	Squelch off
Press [PF1] and hold for one second	Call
press[PF2] and hold for one second	High/Low Power Switch

◦ **AUXILIARY FUNCTION**

Users can program **[PF1]** and **[PF2]** key for one of auxiliary functions by programming software.

Please refer to part instructions of ADVANCED OPERATIONS

- Squelch off
- Monitor
- TX Power Switch
- Scan
- Frequency Reverse
- Talk Around
- Current Battery Capacity Inquiry
- Calling
- Temporary Deletion of the Interfering Channel

(((Switch On / Off Transceiver

Switch on transceiver: When the transceiver is in the closed state, turn POWER / VOLUME clockwise to switch the transceiver on. After the transceiver voices "click", the power supply is switched on, the transceiver announces "welcome to use" and " current channel number" in current group.

Switch off transceiver: When the transceiver is in the open state, turn POWER / VOLUME anticlockwise to switch the transceiver off. After the transceiver voices "click", the power supply is switched off.

(((Turn On / Off Jacklight

Under the standby condition, press the emergency alarm key to turn on jacklight.



Repeat this action to turn off jacklight.

(((Volume Control

When the transceiver is under open state, turn POWER / VOLUME switch to adjust the volume. Turn clockwise to increase the volume, and turn anticlockwise to decrease the volume. You can press the programmed key of squelch off [PF1] / [PF2] to monitor current volume.


NOTE: You can firstly press the programmed key of squelch off [PF1] / [PF2] to monitor the background noise and meanwhile turn POWER / VOLUME to adjust the volume. Under the communication state, you can adjust volume what you need more accurately.







(((Current Channel Inquiry

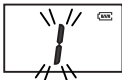
Under the standby conditions, press  or  key, then the transceiver will announce current channel number in current group.

• BASIC OPERATIONS

Channels Selection

Under the standby condition, Press  key, the transceiver will announce the current channel number and channel number flashes in LCD screen.

You can choose the desired channel by pressing  or  key, meanwhile, the transceiver will announce current channel number. Pressing  to increase the channel, pressing  key to decrease the channel and pressing  or  key for more than 1 second to adjust the channels fast.



In the condition that you are not adjusting channel or you have adjusted channel but not exit. It will store and exit after 10s.

NOTE: When adjusting channels, if there is a blank channel (without edition) between two channels, it will skip the blank channel automatically when choosing the channels. For example, if you want to adjust the first channel to the second channel, but the second channel is blank, it will be directly adjust to the third channel and skip the second channel.

Receiving

You can hear the other party calling when backlight lightens under the current channel being called.

NOTE:

- You may not receive the calling if you set the higher squelch level of the transceiver.
- If current channel has programmed with signaling, you can only hear the call from a same signaling, other call can't be heard.

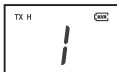
Transmitting

Be sure that the channel you want to use is not in busy state. after you monitor for a while on pressing the programmed squelch off

• BASIC OPERATIONS

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PF1/PF2 key .Under these conditions, press the **[PTT]** key speak into microphone. Please keep around 2.5-5cm distance between microphone and your lip. And please speak in normal tone so as to make the receiver obtain best tone quality.





NOTE: Press the **[PTT]** key and backlight lightens for 10S and then stop, LCD displays TX icon when it is transmitting. Release PTT to receive.

(((Emergency Alarm Function

Press this key for over 3 seconds to start the emergency alarm function.

After starting the function, the transceiver will voice alarm beep, start transmitting and send the alarm beep to companions or systems. Restart the power supply to exit the emergency alarm function.

(((Keypad Lockout

In order to prevent wrong operation, you can make use of Keypad lockout function of this transceiver. Press Emergency Alarm button to turn on transceiver, it enables Keypad lockout when transceiver emits "DU" sound and LCD displays "DU", Under this status,  key and  buttons disable. Repeat the above operations and transceiver emits "DUDU" to cancel key lock function.



FUNCTION SETTING

Basic Functions

1. Press the **[F]** repeatedly to select the desired function .
2. Press **[+]/[-]** to set the function value.
3. Press any other buttons except **[+]/[-]** to store and return into standby status.

CTCSS / DCS Encode / Decode

When the transceiver is edited with this function, it can receive the other party calling only if transceiver receives the matching CTCSS / DCS signal.

CTCSS / DCS signal matching your transceiver or radio without setting signal can receive your calling.

1. Press **[F]** repeatedly till the channel displays on the screen and OF/DT/CT lists on the right side and flashes.
2. Press **[+]/[-]** to select CTCSS/DCS encode and decode or disable this function.

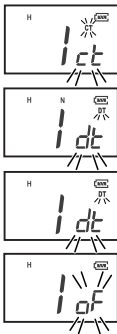
When CTCSS encode and decode is selected, "CT" displays and flashes on the screen .

When positive code of DCS encode and decode is selected, "DT", "N" displays on the screen and "DT" flashes.



When invert code of DCS encode and decode is selected, "DT" displays and flashes on the screen

When the function is closed, "OF" displays and flashes on the screen.

3. Press any other buttons except **[+]/[-]** to store and return into standby status.





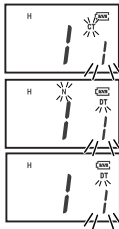
CTCSS / DCS Encode / Decode Group Setting

1. Press  repeatedly till the CT/DT icon and CTCSS/DCS group displays and flashes on the screen .
2. Press  to select the desired CTCSS/DCS encode and decode group.

CTCSS: 50 groups in total. Default: 1 group.

DCS:116 groups in total."N"icon on the screen and twinkling means positive code. None on the screen means invert code.






3. Press any other buttons except  and  key to store and return into standby.



NOTE: This function is displayed only the CTCSS/DCS encode and decode set as CT/DT. Otherwise, the function is auto-hidden. The encode and decode would be adjusted as well when adjusting the CTCSS/DCS by this operation.

Squelch Level

This function keeps speaker quiet when no receiving matched signal. If the receiving signal intensity reach to a certain level, you can hear the other party calling, otherwise transceiver will remain mute.

1. Press  key repeatedly until LCD displays "Sq" icon and current squelch level flashes
2. Press  and  key to choose the desired squelch level from 0-5. 6 squelch levels in total .
3. Press any other buttons except  and  key to store and return into standby status.

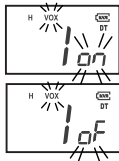


• FUNCTION SETTING

(((Open/Close VOX Function

When this function is started, you can begin transmitting by fitted high voice, no need to press the [PTT] key.

1. Press [F] key repeatedly till "VOX" icon displays and flashes on the screen.
2. Press [+/-] to open/close the VOX function.
ON: VOX ON
OF: VOX OFF
3. Press any other buttons except [+/-] and [F] to store and return into standby status.



NOTE: If want to open VOX function, you should program VOX function available by programming software, otherwise this function is auto-hidden. Power on again to turn off VOX

(((VOX Levels Setup

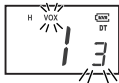
This function is used for setting volume level which is needed when doing the VOX transmission. The higher level transceiver sets, the higher volume it needs.

1. Press [F] till "VOX" displays on the screen and VOX level flashes.
2. Press [+/-] to select the desired VOX level. There are five VOX levels in total .
3. Press any other buttons except [+/-] and [F] to store and return into standby status.

NOTE: This function is enable only VOX on ,otherwise this function is auto-hidden.

(((BEEP Voice Prompt

1. Press [F] repeatedly till "BP" icon displays and flashes on the screen.
2. Press [+/-] to open/close BEEP voice prompt function.






FUNCTION SETTING

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ON: Turn on BEEP Voice Prompt.

OFF: Turn off BEEP Voice Prompt.

3. Press any other buttons except   and  to store and return into standby status.





FM Radio Setup

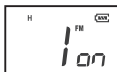
1. Press  key repeatedly till "FM" icon displays and flashes on the screen.



2. Press   to open/close FM radio function

ON: Turn on FM radio.

OFF: Turn off FM radio (Power on again the transceiver can also turn off the FM radio function)




3. Press any other buttons except   to store and return into standby status.



NOTE: When the FM radio is on, press   to search broadcasting station and the transceiver reports current channel. The transceiver will keep the received broadcasting station. It can transmit and receive signal normally when the FM radio is on.

Long-Distance Anti-theft Alarm Setting (Optional)



This function is mainly for simple anti-theft alarm device in vehicles. When enable the function, plug the external alarm cable into the programming port to start the alarm function. Under the anti-theft alarm status, disconnect the external alarm cable, the transceiver will emit and transmit alarming to other transceivers of the same frequency.

1. Press  key repeatedly until the "ES" icon displays and flashes on the screen.
2. Press   to turn on/off the Long-Distance Anti-theft Alarm.

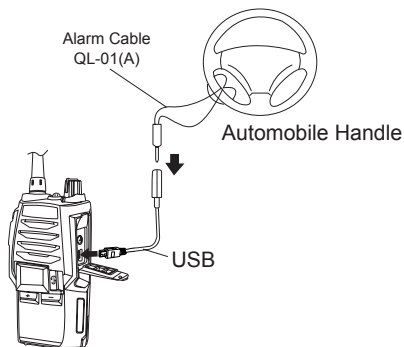
FUNCTION SETTING

ON: Turn on the long-distance alarm function.

OFF: Turn off long-distance alarm function




3. Press any other buttons except   to store and return into standby status.

4. Connection as follows:



⏏ Upending Alarm (Optional)

When this function is enabled, the transceiver will emit voice prompt 10 seconds after it is put in incorrect way.

1. Press  key until "dn" icon displays and flashes on the screen.
2. Press   to turn on/off the upending alarm function.



ON: Turn on the upending alarm function.

OFF: Turn off the upending alarm (Power on again the transceiver can also turn off this function).



FUNCTION SETTING

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3. Press any other buttons except   to store and return into standby status.

NOTE:

Transceiver equipped with Upending Alarm Function can realize a combined function--Upending Long-distance Anti-theft Alarm Function When Upending Alarm Function and Long-distance Anti-theft Alarm Function are both enabled. Then, the transceiver will emit and transmit voice prompt to radio station and other transceivers of same frequency 10 seconds after the transceiver is incorrectly placed.

• ADVANCED OPERATIONS

The [PF1] and [PF2] key buttons are programmable. They can realize the following functions by programming.

NOTE:

When programming the following functions as PF1-1S or PF2-1S, Please press the PF1-1S or PF2-1S for one second till the transceiver emits "DU" beep and then release the key to realize the programmed function. Repeat above operation, and release the key when transceiver voice "DU DU" beep to cancel the programmed function.

(((Squelch Off

Press the programmed key of squelch off [PF1] / [PF2], the squelch circuit is not mute and at present you can hear the background noise. Press this key again, the squelch circuit is mute. Use this function you can monitor the weaker signal which is hard to receive. Meanwhile, the current signal intensity displays on the screen.

(((Monitor

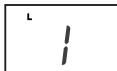
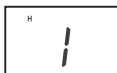
Press the programmed key of monitor [PF1] / [PF2], the transceiver emits "DU" beep and then comes into the monitor state. Under these conditions, transceiver will ignore CTCSS / DCS decode and monitor the other party signal as long as receiving the matching carrier wave. Press this key again, transceiver emits "DU DU" beep and exits the monitor state.

(((TX Power Switch

Under the standby conditions, press the programmed key High/Low Power Switch [PF1] / [PF2], transceiver will announce the current power.

Choosing High Power, current channel will transmit in high power; Choosing Low Power1, current channel will transmit in medium power; choosing Low Power2, current channel will transmit in low power.

"H" icon on the screen means high power



“L” icon on the screen means low power 2.

None on the screen :low power 1(medium power)

(((Scan

Scan function can be used in monitoring every channel of current group.

Under the standby conditions, press the programmed scan key, transceiver emits “DU” beep and comes into scan state. It scans channels one by one according to the channels of scan line. When a certain channel receives matching signal, the transceiver will temporarily stay in this channel till the signal disappears. Press scan key again, transceiver emits “DU DU” beep, exits scan and then switches the working channel into channel which is programmed by users in advance (Please refer to returned channel in the programming software).

(((Frequency Reverse

Under the standby conditions, press the programmed key of Frequency Reverse, transceiver emits “DU” beep and then comes into Frequency Reverse state. After that, the current channel RX frequency will be switched to TX frequency, and the CTCSS or DCS signal which has been then will also be switched. Press this key again, the transceiver exits reverse function with “DU DU” beep.

(((Talk Around

Under the standby conditions, pressing the programmed key of Talk Around, transceiver emits “DU” beep and then current channel comes into Talk Around state. Under these conditions, transceiver will transmit by receiving frequency. Also, setting code (CTCSS / DCS) will transmit by decoding signal as encoding signal. Press this key again, transceiver emits “DU DU” beep and exits the Talk Around state.

Note:Under the Talk Around state, the transceiver can not communicate with other transceivers through repeaters.

◦ ADVANCED OPERATIONS

(((Battery Capacity Inquiry

Under the standby conditions, press the programmed key of Battery Capacity Inquiry, transceiver will announce the current battery capacity.

(((Call Promoting

This function reminds users of current missed call.

Under the standby conditions, the transceiver will send the calling signal after pressing programmed calling key. When the other party receives the calling signal, it reminds users as per the programmed way.

Five call prompting ways:

Oscillation, ring (chord 1), ring (chord 2), oscillation + ring (chord 1), oscillation + ring (chord 2),

Default: oscillation + ring (chord 1) as missed call prompting.

NOTE:

Transceiver's oscillation function is optional. When there is no oscillation function, only ring is available for call prompting.

(((Temporary Deletion of the Interfering Channel

Usage of this function can temporarily delete the interfering channel or occupied channel from scan line. When scan rests on one channel, pressing the programmed key of Temporary Deletion of The Interfering Channel, transceiver emits "DU" beep and temporarily deletes this channel from scan line. But the priority channels cannot be temporarily deleted. If only one or two channels are in scan line, this operation is not available. Restart the transceiver; you can add the temporarily deleted channels into scan line again.

(((Wide / Narrow Band Setup

On the basis of national conditions, users can set 25K (wide band) or 12.5K (narrow band) as channel spacing on the transceiver by programming software to communicate.

This transceiver can realize 25K (wide band) or 12.5K (narrow band) as communication way.

NOTE: “N” icon on the screen indicates current narrow band. Otherwise, it is wide band.

(((Busy Channel Lockout

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

Please use programming software to setup busy channel lockout mode.

1.Repeater: Repeat lock, transmitting is inhibited when current channel receives a matching carrier with different CTCSS/DCS.

2.Carrier wave: Carrier busy lock, transmitting is inhibited when current channel receives a matching carrier wave.

3.Close: BCL disabled, you can do transmission under whatever receiving state.

(((Scan Accession

User can choose to add the current channel to scan line or not by programming software. If the current channel is not added in the scan line, transceiver will skip this channel when scanning.

(((Time-out Timer

The time-out timer is to restrict continuous transmission for a long time. If you continuously transmit for a period of time that exceeds the programmed time, the transceiver will stop transmitting and an

◦ BACKGROUND OPERATIONS

alarm tone will sound.

The users can set TOT timer on transceiver by programming software.

(((**Time-out Timer Alarm**

The time-out timer is to alarm users that overtime transmission is pending.

Users can program the TOT alarm as per what they want by programming software.

(((**Battery Save Setup**

Transceiver can save the battery consumption efficiently when starting this function. Transceiver will automatically switch on battery save without receiving any signal or making any operations. But when the transceiver receives a matching signal or make operations, it will automatically exit this function.

(((**Priority Scan Setup**

There are two priority scan settings of this transceiver. They are Normal priority scan setting and Selected priority scan setting. Users can set the desired priority scan by programming software. If transceiver set priority scan, under scanning and receiving no signal state, it will scan every channel and also test priority channel at a time. When the non-priority channel receives signal, it will test priority channel according to flyback time A and flyback time B setup by users.

(((**Return to Appointed Channel**

Return to appointed channels means that transceiver will return to the appointed channels during the scan by pressing PTT key to transmit or pause scan. There are many ways to return to appointed channels. Users can select desired ways through programming software.

◦ BACKGROUND OPERATIONS



NOTE: Both basic functions and advanced operations can be setup in background by programming software.

(((Programming Software Installing & Starting (Based on WINDOWS XP OPERATION SYSTEM FOR EXAMPLE)

1. Double-click “**QPS928 SETUP.EXE**”, and then install the software as per computer instructions.
2. Click “**START**” menu in computer, select and click “**USB TO COM PORT**” entry in the “**QPS928**” program from “**ALL PROGRAM**” menu. And then install “**USB TO COM PORT**” drive program as per computer instructions.
3. Connect the optional cable PC04 to the USB port in PC device and connect the transceiver with the other end of cable.
4. Double click **QPS928** setup short-cut icon or click “**START**” menu to choose **QPS928** entry in the **QPS928** program from “**ALL PROGRAMS**” menu. As per computer command, choose serial port “**COM Port**” firstly, then click **OK** to start programming software (It must install software firstly and then insert USB programming cable).

NOTE: The programming software of this transceiver has identifying system. Therefore, when you start programming software at the first time, you should connect the transceiver and then you can run the software, otherwise the software cannot be run.

(((Resume Factory Default

Transceiver can be set as factory default through this function when transceiver works abnormally for wrong operations or wrong program. The operations showed as followings:

Under the closed state, press and hold [**PTT**] key and [**PF1**] key synchronously to switch on transceiver until LCD displays “rs” and

BACKGROUND OPERATIONS

then release these two keys, the transceiver will resume factory default.

(((Maintaining and Cleaning



If you do not use transceiver, please cover the jack. After long-time usage of the transceiver, keys, control buttons and housing would become dirty. you can use nature detergent(not using corrosive chemicals) and wet cloth to clean it.

TECHNICAL SPECIFICATIONS

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General		
Frequency Range	VHF:136-174MHz VHF:245-245.9875MHz UHF: 400-480MHz	
Channel Capacity	128 channels	
Channel Spacing	25KHz (Wide Band) 12.5KHz (Narrow Band)	
Phase-locked Step	5KHz, 6.25KHz	
Operating Voltage	7.4 DC ±20%	
Battery Life	More than 12 Hours (1300mAh)by 5-5-90 work cycle	
Frequency Stability	±2.5ppm	
Operating Temperature	-20~ +55	
Size	195×56×30mm (with battery, antenna)	
Weight	185g (with battery, antenna)	
Receiving Part		
	Wide band	Narrow band
Sensitivity(12dB SINAD)	≤0.25μV	≤0.35μV
Adjacent Channel Selectivity	≥60dB	≥60dB
Intermodulation	≥60dB	≥60dB
Spurious Rejection	≥80dB	≥80dB
Audio Response	6dB / per interval	6dB / per interval
Hum & Noise	≥50dB	≥45dB
Audio Distortion	≤5%	
Audio Power Output	500mW (at 10%)	
Transmitting Part		
	Wide band	Narrow band
Power Output	4W / 2.5W / 0.5W	
Modulation	16KΦF3E	11KΦF3E
Adjacent Channel Power	≥60dB	≥60dB
Hum & Noise	≥45dB	≥36dB
Spurious Emission	≤-36dB	≤-36dB
Audio Response	6dB / per interval	6dB / per interval
Audio Distortion	≤5%	

NOTE: Specifications is adjusted for technology improvement. Excuse there is no further notice.

• TROUBLE SHOOTING GUIDE

Problem	Corrective Action
No power	<p>A.The battery pack may be exhausting. Recharge or replace the battery pack.</p> <p>B.The battery pack may not be installed correctly. Remove the battery pack and install it again</p> <p>C.The power switch is broken; Send it to local dealers to repair.</p> <p>D.Battery touch is broken; Send it to local dealers to repair.</p>
Battery power dies shortly after correctly charging.	The battery pack life is finished. Replace the battery pack with a new one.
Transceiver cannot scan	The channels are not in scan list. (Professionals set it)
All band noisy after programmed or backlight always lightens	Turn on squelch when programmed. Non-professionals are advised not to adjust this function.
No sound after using microphone for a while	Earphone jack is broken. (Please contact with local dealers to repair it)
Communication distance becomes short, and it is low sensitivity	<p>A.Check whether the antenna is in good condition and the antenna base do not come adrift.</p> <p>B.The selected mode frequency is not in accord with transceiver's frequency when programming.</p> <p>C.Whether it has set in low power output. (Please contact with local dealers to repair it)</p>
Cannot talk to or hear other members in your group	<p>A.Different frequency or channel, please change it.</p> <p>B.Different CTCSS / DCS,please reset it.</p> <p>C.Out of communication range.</p>
Can not power on or frequent power-off	Check whether the battery touch is out of sharp or broken.

• TROUBLE SHOOTING GUIDE

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Problem	Corrective Action
The other party gets low or intermittent	Check whether the MIC is stoppage. (Otherwise, please contact with local dealers to repair it)
Intermittent receiving with big noise.	Out of communication range or obstruct by tall buildings or in basement and so on.
Loudspeaker become lower or with "ka ka" sound after using a certain time	Check whether the loudspeaker net is broken. Iron powder or sundries is in the loudspeaker. (Please contact with local dealers to repair it.)
Receive voice from the other party but can not transmit	Check [PTT] key. (Please contact with local dealers to repair it.)
Receiving indicator(backlight) lightens all the time lightens but no sound	A.Low volume, please turn on clockwise. B.Loudspeaker is broken. (Please contact with local dealers to repair it.) C.Earphone jack is broken. (Please contact with local dealers to repair it.) D.Volume switch is broken. (Please contact with local dealers to repair it.)
Can not adjust channels	Keypad locked. (Please refer to "keyboard locked" on page 16th to close the Keypad lockout function.)

• ATTACHED CHART

CTCSS Frequency Chart

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

• ATTACHED CHART

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DCS Chart

1	017	21	115	41	223	61	315	81	446	101	627
2	023	22	116	42	225	62	325	82	452	102	631
3	025	23	122	43	226	63	331	83	454	103	632
4	026	24	125	44	243	64	332	84	455	104	645
5	031	25	131	45	244	65	343	85	462	105	654
6	032	26	132	46	245	66	345	86	464	106	662
7	036	27	134	47	246	67	346	87	465	107	664
8	043	28	135	48	251	68	351	88	466	108	703
9	047	29	143	49	252	69	356	89	503	109	712
10	050	30	145	50	254	70	364	90	506	110	723
11	051	31	152	51	255	71	365	91	516	111	731
12	053	32	155	52	261	72	371	92	523	112	732
13	054	33	156	53	263	73	411	93	526	113	734
14	055	34	162	54	265	74	412	94	532	114	743
15	065	35	165	55	266	75	413	95	534	115	754
16	071	36	172	56	271	76	423	96	546	116	765
17	072	37	174	57	274	77	425	97	565		
18	073	38	205	58	305	78	431	98	606		
19	074	39	212	59	306	79	432	99	612		
20	114	40	217	60	311	80	445	100	624		

NOTE: N is positive code. "P" is invert code. There are 232 groups of DCS in total. The overstriking marks are non-standard DCS.

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