

THANK YOU!

We are grateful for your purchase this transceiver. We believe this easy-to-use transceiver will provide you with dependable and reliable communications.

This transceiver is a wide-band professional FM transceiver with high quality, it will provide you reliable communication from 136-174MHz or 400-470MHz with advanced technology and workmanship, for better performance, please read the manual before use.

MODELS COVERED BY THIS MANUAL

3208: 16-channel VHF FM Transceiver 136–150MHz

3208: 16-channel VHF FM Transceiver 150–174MHz

3208: 16-channel UHF FM Transceiver 400–440MHz

3208: 16-channel UHF FM Transceiver 450–470MHz

The transceiver apply for the software of QXPG-36D

Note: For avoiding mistakes, should read the data first, then program.

QUICK-OPERATION GUIDE

Function	Operation	Page
High Power	Press [PTT] to switch ON and pressing for 5 seconds more. Turn the channel selector to channel 1 and save by pressing [PTT] then switch OFF and reboot.	12
Low Power	Press [PTT] to switch ON and pressing for 5 seconds more. Turn the channel selector to channel 2 and save by pressing [PTT] then switch OFF and reboot.	12
OFF Reporting Number	Press [PTT] to switch ON and pressing for 5 seconds more. Turn the channel selector to channel 3 and save by pressing [PTT] then switch OFF and reboot.	11
Reporting Number in Chinese	Press [PTT] to switch ON and pressing for 5 seconds more. Turn the channel selector to channel 4 and save by pressing [PTT] then switch OFF and reboot.	11
Reporting Number in English	Press [PTT] to switch ON and pressing for 5 seconds more. Turn the channel selector to channel 5 and save by pressing [PTT] then switch OFF and reboot.	11
VOX	Press [MONI] to switch ON and pressing for 5 seconds more. Turn the channel selector to select VOX gain.1(L)-16(H). Save by pressing [PTT] while cancel by pressing [MONI]. Switch OFF and reboot.	11

PROMPT GUIDE

"Da da" sounds at intervals	Out of lock,programmable frequency over the frequency range of the transceiver
The red flashes when transmitting and keep communicating	The voltage of battery is low. Please charge!
The transmitting will stop when the red flashes and "du" sounds	The voltage of battery is too low.Please charge at once!
The transmitting(last a little while) will stop when hear constant "du" from speaker	Time-out timing warning Release [PTT] and re-transmit.
When receive signal,the kelly light on,Press[PTT]to transmit and "du" sounds,It will back to receive and cannot be transmitted.	Busy channel lock has been set
When receive signals,the kelly light on,but the speaker cannot voice	QT or DQT has been set
It will transmit automatically when talking without press [PTT]	VOX has been set

SAFETY

It is important that the operator is aware of, and understands, hazards common to the operation of any transceiver.

PRECAUTIONS

- Refer service to qualified technicians only.
- Do not operate the transceiver or charge a battery pack in explosive atmosphere (gases, dust, fumes, etc.).
- Do not modify or attempt to adjust this transceiver for any reason.
- Do not expose the transceiver to long periods of direct sunlight, nor place it close to hot appliances.
- Do not place the transceiver in excessively dusty, humid, and/or wet areas, nor on unstable surface .
- If you find the transceiver with strange smell or smoking, please turn it off and move the batteries.



WARNING

Turn OFF the transceiver while taking on fuel or while parked in a gasoline service station.

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UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We suggest that you confirm the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

■ Standard Accessories

ITEM		QUANTITY
Antenna	136-174MHz	1
	350-390MHz	
	400-470MHz	
	470-512MHz	
Li-ion Desktop charger		1
Adaptor		1
Li-ion battery pack 7.4V 1100mAh		1
Belt clip		1
Screws		1
Instruction manual		1

Standard Accessories



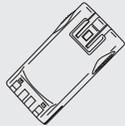
Antenna



Li-ion Desktop charger



Adaptor



Li-ion battery pack



Belt clip



Screws



Instruction manual

Optional Accessories



Headset



Speaker/Mic
(QME-01)



Speaker/Mic
(QME-02)



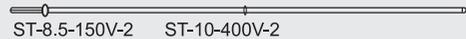
Programming Software



Programming Cable



ST-6.5-150V-1 ST-8.5-400V-1



ST-8.5-150V-2 ST-10-400V-2

High gain antenna

PREPARATION

Charging the Li-ion Battery Pack

The battery pack is not charged at the factory; charge it before using. Initially charge the battery pack after purchasing or extended stored (over 2 months) will not bring the battery pack to its normal operating capacity. After repeated charge/discharge cycle two or three times, the operating capacity will increase to normal.

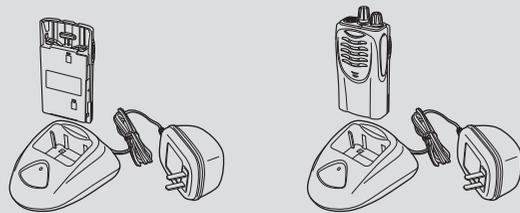


WARNING

- PLEASE USE THE SPECIFIED CHARGER, DO NOT DISASSEMBLY THE BATTERY PACK. ALL RESULT CAUSED BY DISASSEMBLY WITHOUT PERMISSION MUST BE BEAR BY THE USERS THEM SELVES.
- DON'T SHORT CIRCUIT THE BATTERY TERMINALS OR THROW IT INTO THE FIRE.
- DON'T INSTALL THE BATTERY IN DANGEROUS SURROUNDINGS , SPARK WILL CAUSE EXPLOSION.

How to charge

- ① Plug the desktop charger into an AC outlet
Charging-----Green
- ② Slide the Li-ion battery pack or transceiver with Li-ion battery pack into the charger slot, confirm the good touch between battery pack and charger.
Charging indicator-----Red
- ③ 90% charged,the charging indicator will turn to Light Green
- ④ Fully charged, the charging indicator will turn to Green.



After charging the supplied battery pack for 9 hours, remove it or the transceiver equipped with it from the charger.

WARNING

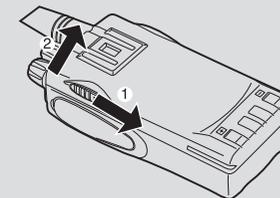
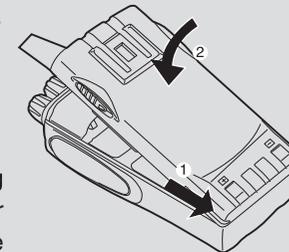
- DO NOT RECHARGE THE BATTERY PACK IF IT IS ALREADY FULLY CHARGED, DOING SO MAY SHORTEN THE LIFE OF THE BATTERY PACK OR THE BATTERY PACK MAY BE DAMAGED.

NOTE:

- The temperature of the charging surrounding shall be between 5°C to 40°C, or the battery pack can't be fully charged.
- Before charging, please turn off the transceiver, operating transceiver when it is on charging will affect the charging efficiency.
- The battery pack life is over when it's operating time still not increase even though it correctly fully charged. Replace the battery pack.

Installing/Removing the Battery Pack

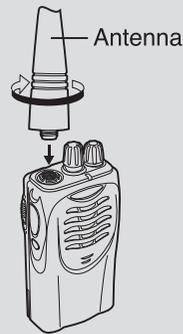
1. Match the two grooves of the battery pack with the corresponding guides on the transceiver bottom.
2. Slide the battery pack along the back of the transceiver until the release latch on the base of the transceiver locks.
3. To remove the battery pack, pull back on the release latch and slide the pack away from the transceiver.



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.

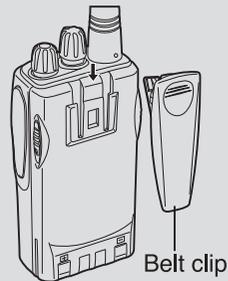
Note: Do not hang anything around the antenna. It may damage the antenna and affect transceiver's performance.



Installing the Belt Clip

If necessary, please install the belt clip supplied together with transceiver to the back of the transceiver, it is more convenient for carrying.

- Slide down the belt clip into the slots on the back of the transceiver till it is tied.
- To remove the belt clip, please press the latch, then slide up.



GETTING ACQUAINTED

Antenna

LED Indicator

Lights Red while transmitting, it is high power output.
Lights ORANGE while transmitting, it is low power output.
(Red and kelly light on at the same time), lights GREEN while receiving signal, Red flashes while transmitting under low battery volume.

Channel switch

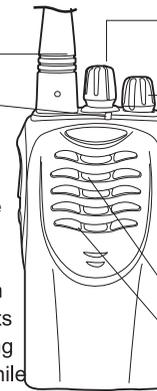
Toggle this switch to select channels 1-16.

Power switch/volume control

Turn clockwise to switch ON the transceiver.
To switch OFF the transceiver, turn counterclockwise until a click sounds. Rotate to adjust the volume level.

Speaker

Microphone



PTT (Push-To-Talk) switch

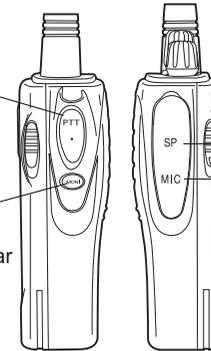
Press, then speak into the microphone to call a station.
Release to receive.

Monitor key

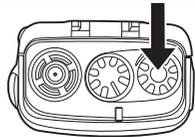
Press [MONI] key to hear background noise.

Speaker/ Microphone jacks

Battery pack

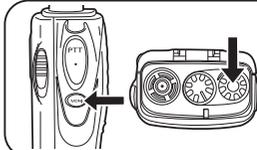


BASIC OPERATION

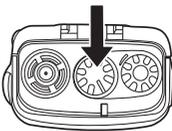


Switch ON the transceiver by turning the **Power** switch/**Volume** control clockwise.

- A "bi" sounds if the prompting voice has been set.

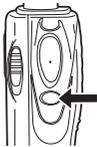


Adjust the volume by pressing and holding the **Monitor** key, then rotating the **Power** switch/**Volume** control.



Rotate the **Channel** selector to select your desired channel.

- When you receive an appropriate signal, you will hear audio from the speaker and the kelly lights on.



To make a call, press and hold the **PTT** switch, then speak into the microphone using your normal speaking voice.

- Hold the microphone approximately 1.5 inches (3 to 4 cm) from your lips, to ensure perfect communication.

Release the **PTT** switch to receive.

NOTE:

1. When it is in low power, press [PTT], the transmitting indicator flashes. Please charge in time!
2. When the power is too low, press [PTT], the transmitting indicator ON and hear the alarm sound, it flashes continuously after releasing [PTT]. Please change the battery or charge.

ADVANCED OPERATION

VOX function

VOX function can support handsfree communication. 16 levels for free choice to get used to different environment.

1. Switch ON VOX

Turn the Power/Volume switch to OFF, press [MONI] more than 5 seconds and turn off the transceiver, you will hear prompt sounds, now VOX function is ON when you release it. VOX sensitivity is the same as that set last time.

Set VOX sensitivity:

When VOX function is ON, turn the channel switch to the necessary value (different sensitivity step according to different surroundings); Press [PTT] to save the setting value (1L~16H) while VOX is OFF by pressing [MONI].

2. Switch OFF VOX

Turn Power/Volume switch to OFF. Press [MONI] more than 5 seconds, you will hear the prompt sounds then release the key. And press again to set off the VOX function. If you want to set on the function again, please repeat the procedure.

Voice Prompting Function

The transceiver provides with the Voice Prompting function. The speaker will sound for the current channel you choose.

1. Function option

Turn Power/Volume switch to ON. Press [PTT] for more than 5 seconds. Release [PTT] when hear the prompting, then enter the status of function option.

2. Voice prompting setting:

Enter the function status: turn the channel selector to choose the function you need. (1. High power: the red light ON; 2. Low power: the orange light ON; 3. Turn off the voice prompting function; 4. Voice prompting in Chinese; 5. Voice prompting in English). You can choose among 3, 4, 5 and save by pressing [PTT].

ADVANCED OPERATION

Note: The functions can be chosen circularly.

3. Power off and restart then it will enter the finished setting.

High/Low power switch function

The transceiver spends a lot of battery capacity when it is in high power output. Choose low power output to save battery when in close communication. If the communicating distance is too far to choose high power output to transmit.

1. Enter the function status: switch OFF by turning the power/volume selector and press [PTT] to switch ON for more than 5 seconds then release it.
2. Choose High/Low power in function status: turn the channel selector to choose the function you need (1. High power: the red light ON; 2. Low power: the yellow light ON; 3. Turn off the voice prompting function; 4. Voice prompting in Chinese; 5. Voice prompting in English). You can turn the channel selector to choose between 1-2 for High/Low power and save by pressing [PTT].

Note: The function can be chosen circularly.

3. Power off and restart then it will enter the finished setting.

AUXILIARY OPERATION

Adopt QXPG-36D (software) and QXPL-01 (program cable) to program.

How to set on/ set off scan and prior scan function.

Set "Scan/Shift" of CH1 to CH15 to be YES (at least one channel), then scan and prior scan is ON, these channels will be in scan list. Set "Scan/Deviation" of CH1 to CH15 to be NO, then scan and prior scan is OFF, and kick these channels out of scan list.

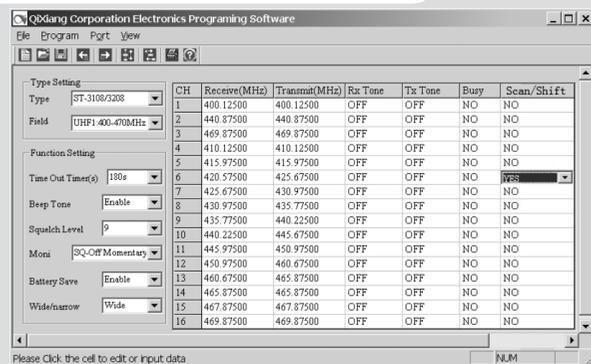
How to set

1. Please set "Scan/Shift" of CH1 to CH15 to be YES, then scan function is ON.
2. If you set "Scan/Shift" of CH 16 to be YES, then alert function is ON.
3. The superior prior channel: "Scan/Shift" of channel CH1 to CH15 (at least one channel) was set to be YES, at this time if CH16 is programmed with frequency, then it is the most prior channel.

Scan

When CH16 is not programmed with frequency, turn the channel switch to be in CH16, it will scan CH1 to CH15 which is in scan list automatically, when receiving signal, then begin communication. Function: when receiving the efficient signal, open squelch automatically to receive signal, within the power-saving duration (about 5 seconds), you can communicate with users under same channel, now the receiving party stay in CH16 to monitor all channels which "Scan/Shift" has been set to YES. As illustrate in the figure, CH4, CH5 and CH6 have been set to be YES, at this time if CH16 is empty, it will scan CH4, CH5 and CH6 in turn; When "Scan/Shift" of CH1 to CH15 are all set to be YES, it will scan CH 1 to CH 15 in turn; When "Scan/Shift" of CH 1 to CH 15 are all set to be NO. Then CH16 will sound a long "Du....." to remind you that scan function is OFF.

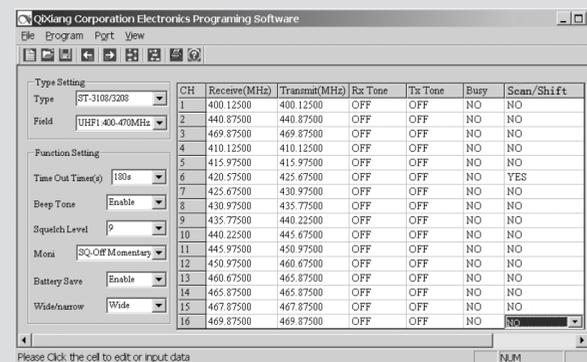
AUXILIARY OPERATION



Prior Scan

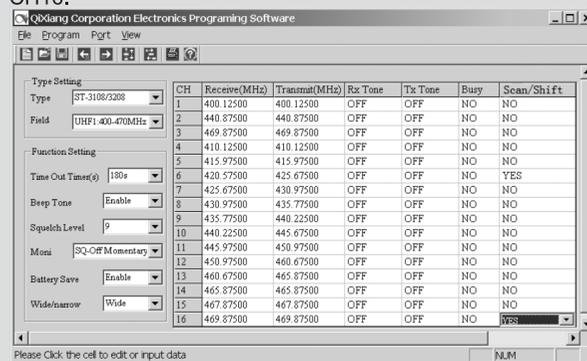
- When CH16 is programmed with frequency, and "Scan/Shift" of CH16 is set to be NO, then CH16 become prior scan channel, it will scan from CH1 to CH15 which have been set to be YES, and then scan CH16, work like the following: CH16, CH4, CH16, CH5, CH16 and CH6.
- When CH16 is programmed with frequency, and "Scan/Shift" of CH16 is set to be NO, then no matter which channel from CH1 to CH15 which "Scan/Shift" have been set to be YES you are in, it will scan CH16 and the channel which the user stay in alternatively. While not scanning the channel which "Scan/Shift" have been set to be NO.
Function: When the user is in CH16, he can press PTT to talk with other users whose "Scan/Shift" have been set to be YES, as well as monitor them.

AUXILIARY OPERATION



Prior Alert

When CH16 is programmed with frequency, and "Scan/Shift" of CH16 is set to be YES, then when it receive signal, it will alert, press [MONI] key to exit, and communicate in the frequency of CH16.



AUXILIARY OPERATION

How to set off alert and scan

If alert and scan functions is ON, and often get disturbance, the users can set off alarm & scanning as following: Set the "Scan/Shift" of CH1 to CH16 to be NO, and enter the frequency and CTCSS.

Group Users

E.g. Divide 50 people into five groups A,B,C,D and E. and the corresponding channels from CH1 to CH5. The "Scan/Shift" of all five channels have been set to be YES (prior channels), set "Scan/Shift" of CH16 to be NO. Then we can operate as following: Group talk: Any member of the groups just switch to CH16, then press PTT to talk with all other members successfully. Talk to one channel: Any member of the groups just switch to corresponding channels of group A, B, C, D and E, then you can talk with one specific groups. E.g.: If group A wants to talk with group D, then just switch to the same channel as group D, then can talk with each other.

Note:

When programming the transceiver, CH 16 should set with CTCSS, especially when "Scan/Shift" is set to be YES. In order not to get disturbance from same channels

Time Out Time(s)

The purpose of the time-out timer is to prevent any signal person from using a channel for an extended period of time. If you continuously transmit more than the programmed time set by dealer, the transceiver will stop transmitting and a tone of "bi" will sound. Release the [PTT] to stop the tone. When you press it again, it will resume to transmit. (The length of the time is set by the software of dealer.)

AUXILIARY OPERATION

Battery save

The battery save function decreases the amount of power used when a signal is not being received or no operations are being performed (without pressing turning the switch). The function will be started up when the channel is not engaged or no operation for more than 5 seconds. When receiving signals and operating, the function will be turned off automatically. (set ON/OFF the function by the software of dealer)

Low battery warning

Low battery warning alerts you when the battery needs to be recharged. While transmitting, if the battery power goes below a predetermined value, the indicator will flash. When a tone of "bi" sounds, the transceiver will stop transmitting. Please change the battery or recharge it.

Busy channel locked (Busy)

It can prevent from the interference with other radio used the same channel when switch on the function. When the channel is occupied, press [PTT], a warning tone will be heard and back to receiving status.

Squelch

It can make speaker mute. The squelch level decide when the squelch should be ON/OFF. If squelch level is too high, then you can not get weak signal; if the squelch level is too low, the user will get noise and keep receiving squelch level can be set from 1 to 9.

Wide/Narrow Band

You can set wide/narrow band of the transceiver.

Note: The communication between the transceiver with wide band and the transceiver with narrow band, the voice volume is great with distortion. The squelch RF is easy to turn off according to the increasing voice. The communication between the transceiver with narrow

AUXILIARY OPERATION

band and the transceiver with wide band, the voice volume is low with great noise.

Prompt

Switch ON/OFF of the function. (The function covers all the prompt of the transceiver.)

CTCSS/DCS

Some channels may have pre-programmed CTCSS tones by dealer. A CTCSS tone is a subaudible tone which allows you to ignore (not hear) calls from other parties who are using the same channel. When you receive a signal that has a tone different from the one set up in your transceiver, you will not hear the signal. Likewise, signals that you transmit will only be heard by parties whose CTCSS tone matches the tone set up in your transceiver.

Note: Although using channels set up with CTCSS tones relieves you from listening to unwanted calls, it does not mean your calls will be confidential.

SPECIFICATION

Frequency Range	136-174MHz
	350-390MHz
	400-470MHz
	470-512MHz
Using Temperature	-20℃ to +55℃
Frequency Synthesization	PLL
Rated Voltage	DC 7.4V (Li-ion battery pack)
Memorial Channel	16 channels
Antenna Collocation	Wide Band 8 High Gain Antenna (Special)
Antenna Impedance	50Ω
Working Way	Single-duplex in same channel Single-duplex in different channel
Grounding	Cathode
Size	51X100X28 (including battery pack)
Weight	215g including battery pack and antenna

SPECIFICATION

Transmitter	
Power output	Hith Power:4W Low Power:1W
Modulation	FM
Max. Freq. Deviation	$\leq \pm 5\text{KHz}$
Residual Wave Radiation	$\leq -65\text{dB}$
Pre-emphasis	6dB
Transmitting Current	$\leq 1400\text{mA}$

Receiver	
Sensitivity	Wide Band: $<0.18\mu\text{V}$ Narrow Band: $<0.25\mu\text{V}$ (12dB SINAD)
Squelch Sensitivity	$<0.18\mu\text{V}$
Inter Modulation Interference	60dB
Audio Power	$> 400\text{mV}$
Receiving Current	$\leq 200\text{mA}$
Squelch Standby	20mA

Note: No further advise for changing specification.

TROUBLE SHOOTING GUIDE

Trouble phenomenon	Shooting method
No power	<ul style="list-style-type: none"> • Maybe out of battery, please charge or replace new battery. • Maybe the battery is not correctly installed, try again.
Unable to talk with others in the group	<ul style="list-style-type: none"> • Check whether the Frequency and CTCSS is same as that of other members • Whether other members are in valid communication distance of transceivers
There is disturbance from other members	<ul style="list-style-type: none"> • Please modify CTCSS, also signal order of other members. • Modify to work in other frequency.
The battery life is short even after correctly charged.	<ul style="list-style-type: none"> • The battery's life is over, replace with a new one.
The transceiver can't scan	<ul style="list-style-type: none"> • The channels are not in scan list (set by professional staff)
Noisy after being programmed	<ul style="list-style-type: none"> • Squelch is open when programming, non-professional users please do not modify parameters causally.
Some regulated"da da" sounds after being programmed	<ul style="list-style-type: none"> • Some errors happen when program it. Maybe it is out of working frequency range.

TROUBLE SHOOTING GUIDE

Trouble phenomenon	Shooting method
There is no sound after using the earphone for a period	<ul style="list-style-type: none"> • Something wrong with ear bud (Send it to distributor for reparation)
Communication distance closer and sensitivity weaker.	<ul style="list-style-type: none"> • Whether the antenna and its connector is complete. • Whether set to be in low power. (Send it to distributor for reparation)
It can receive but not transmit	<ul style="list-style-type: none"> • Check PTT key. (Send it to distributor for reparation)
Power off often	<ul style="list-style-type: none"> • Check whether the connector of battery is complete
The voice is too low, and often cut off	<ul style="list-style-type: none"> • Check whether the MIC jack is block with something.(Send it to distributor for reparation)
Receiving signal unconsciously, and with big noise	<ul style="list-style-type: none"> • Out of communication distance. • Block with high buildings. • Use it in the underground building (Send it to distributor for reparation)
Speaker with "ka ka" sound after using for a period of time.	<ul style="list-style-type: none"> • Check whether there is something on the cover of speaker.(Send it to distributor for reparation)
No sound from speaker	<ul style="list-style-type: none"> • Check whether it is in Min volume (Send it to distributor for reparation)

FREQUENCY CHART

Model Name: _____

Serial Number: _____

CH	Receive (MHz)	Transmit (MHz)	Rx Tone	Tx Tone	BCL (busy)	Scan/Shift
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						