



# INSTRUCTION MANUAL

PT6500

FM HANDHELD TRANSCEIVER



NOTE:



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We are very grateful for your purchasing **KIRISUN** brand two-way radios produced by Kirisun Electronics (Shenzhen) Co., Ltd.

**KIRISUN** two-way radio always incorporates the latest technology. The quality and function of the **KIRISUN** two-way radio can meet your demands for reliable communication.

#### Notice to the User:

- Please read this instruction manual before operating this radio.
- It's prohibited to use the radio or charge it at any area with a potentially explosive atmosphere (where the air contains gas, dust and smog, etc.), such as while taking on fuel, or while parking at a gasoline service station; or any area where radio communication is prohibited (such as a hospital or a airport.)
- It's prohibited to operate the radio without permission at

the areas where the government laws prohibit radio communication.

- Please don't expose the radio to direct sunlight for a long time; don't place the radio near any heating devices, either.
- Please don't put the radio in extremely dusty, moist or dabbling places; don't place it on any unstable surfaces, either.
- If you want to develop or remodify the radio, refer service to the well-trained professional technicians only and do not disassemble or assemble the radio.

## FCC Notice



Your **KIRISUN** radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, your **KIRISUN** radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

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

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

The following accessories are authorized for use with this product. Use of accessories other than those (listed in the instruction) specified may result in RF exposure levels exceeding the FCC requirements for wireless RF exposure.



To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines **DO NOT** operate the radio without a proper antenna attached, as this may damaged the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied

with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.

**DO NOT** transmit for more than 50% of total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pressing the “PTT” switch.

**ALWAYS** keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the **KIRISUN** belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.

**Electromagnetic Interference/Compatibility** During transmissions, your **KIRISUN** radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

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

#### **IMPORTANT**

**READ ALL INSTRUCTIONS** carefully and completely before using the transceiver

**SAVE THIS INSTRUCTION MANUAL-** This instruction manual contains important operating instructions for the Two-Way Radio

#### **EXPLICIT DEFINITIONS**

| <b>WORD</b>    | <b>DEFINITION</b>   |
|----------------|---|
| <b>WARNING</b> | Personal injury, fire hazard or electric shock may occur.                               |
| <b>CAUTION</b> | Equipment damage may occur.   |
| <b>NOTE</b>    | If disregarded, inconvenience only. No risk of personal injury, fire or electric shock. |

#### **OPERATING NOTES**

When transmitting with a portable radio, hold the radio in a vertical position with its microphone 5 to 10 cm (2 to 4 inches) away from your mouth. Keep the antenna at least 2.5 cm (1 inch) from your head and body.

If you wear a portable two-way radio on your body, ensure that the antenna is at least 2.5 centimeters (1 inch) from your body when transmitting.

#### **PRECAUTIONS WARNING!**

**NEVER** hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the transceiver is vertical.

**WARNING!**

**NEVER** operate the transceiver with a headset or other audio accessories at high volume levels.

**CAUTION!**

**NEVER** short the terminals of the battery pack. **NEVER** connect the transceiver to a power source other than the Battery listed below. Such a connection will ruin the transceiver.

**DO NOT** push the PTT when not actually desiring to transmit.

**AVOID** using or placing the transceiver in direct sunlight or in areas with temperatures below  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

**DO NOT** modify the transceiver for any reason.

**MAKE SURE** the flexible antenna and battery pack are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to water will result in serious damage to the transceiver.

**FCC CAUTION:** Changes or modifications to this device, not expressly approved by **KIRISUN**, could void your authority to operate this transceiver under FCC regulations.

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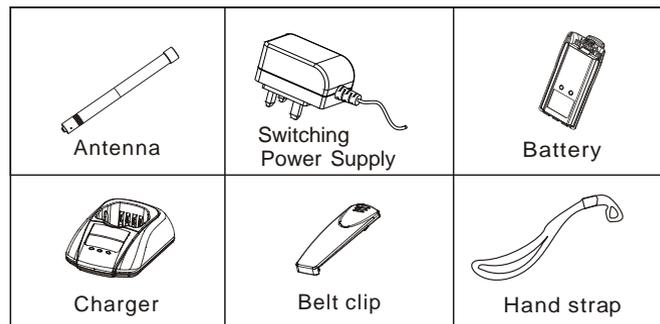
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## ■ UNPACKING AND CHECKING EQUIPMENT

Unpack the transceiver carefully. We recommend that you identify the items listed in the following table before discarding the packing material. If any damage has occurred during shipment, please contact the dealer immediately .

## ■ SUPPLIED ACCESSORIES

| ITEM                   | QUANTITY |
|------------------------|----------|
| Antenna                | 1        |
| Switching Power Supply | 1        |
| Belt clip              | 1        |
| Charger                | 1        |
| Hand strap             | 1        |
| Li-Polymer battery     | 1        |
| Instruction manual     | 1        |



## ■ PREPARATION

### ◆ CHARGING THE BATTERY PACK



Plug the power adapter into the proper AC wall outlet; and insert the cable of the power adapter into the adapter socket on the charger; then the charger indicator lights green.



Insert the battery or the radio to be charged into the charger slot.

Make sure the battery is in good contact with the charger terminals. When the red indicator lights, the charger begins to charge the battery.

After charging for about 5 hours, the red indicator turns dim and the green indicator lights indicating the battery has been fully charged.

Leave the battery in that state of green indicator for 1~2 hours before you remove it from the charger to achieve the best performance of the battery. Then you can disconnect the power adapter from the AC outlet.

#### Notes:

- \* The battery is not fully charged in the factory. Before the initial use, please charge the new battery.
- \* The KB-36A Ni-MH battery/KB-36C Li-Ploy battery of Kirisun is adaptable with this radio.
- \* When you charge the battery the first time or after long time storage

(2 months), several times of charging is needed. Make sure the battery is charged at least once every three months.

\* Do not charge the battery again if it is charged fully or not in the low-pressure warning mode, otherwise, it will have bad effects on its life and performance. Remove the battery from the charger after charging.

\* When you use the KB-36A battery, and the transceiver is in the low-power warning mode, recharge the battery before use. Do not start up by force; otherwise, it will have bad effects on its life and performance.

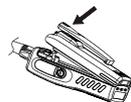
\* There is a protection circuit in KB-36C battery, so the power will be cut off at too low power.

### ◆ INSTALLING /REMOVING THE BATTERY PACK



#### Installing the Battery Pack

Match the 3 bulges of the battery pack with the corresponding slots at the rear bottom of the radio.



#### Installing the Battery Pack

Then firmly press the battery pack downwards to lock it in place until a click is heard.



#### Removing the Battery Pack

To remove the battery pack, use your thumb to press the belt clip, one side of your index finger to press the release button and then pull the battery away from the radio.

#### Notes:

- \* Do not cause short-circuit or throw the battery to the fire.
- \* Do not disassemble the battery by yourself.

### ◆ INSTALLING THE ANTENNA

Screw the antenna into the connector at the top of the transceiver by holding the Button of the antenna and turn it clockwise until secure.



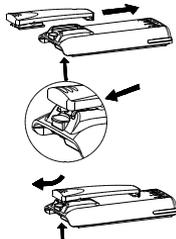
### ◆ INSTALLING THE OPTIONAL SPEAKER/MICROPHONE

Insert the speaker/microphone plug into the jacks of the versatile connector.

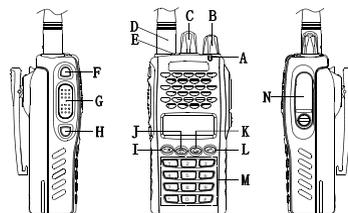


### ◆ INSTALLING THE BELT CLIP

Match the grooves of the belt clip with those on the rear of the battery. Then press belt clip downwards to lock it in place. Push the card by inserting your nail or tool into the groove at the upper part of the clip to remove the belt clip.



### ■ RADIO OVERVIEW



The functions of the components are as follows:

#### A. LED Indicator

Lights red while transmitting;

Lights green while receiving.

#### B. Power/Volume Switch (Knob)

Turn clockwise till a click is heard to switch on the radio.

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

Rotate to adjust the volume after turning on the radio.

#### C. Channel Selector

Rotate to select the channel 1-128.

#### D. Antenna

#### E. Top Button (programmable button)

It is recommended to be set as the emergency warning Button.

#### F. Side button 1 (programmable button)

#### G. PTT (PUSH-TO-TALK) :

To make a call, press and hold the PTT button, then speak into the microphone with normal voice. Release the PTT button to receive signals.

#### H. Side button 2 (programmable button)

**I. Button** 

Return and delete button in the menu.

**J. Button** 

Select Button.

**K. Button** 

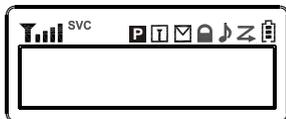
Select Button.

**L. Button** 

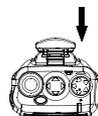
Enter and Confirm Button.

**M. Numeric keypad****N. Microphone/speaker jacks**

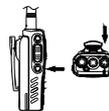
For connecting microphone/speaker.

◆ **Explanation for the screen**

| Icon   | Description           |
|--|-----------------------|
|  | Signal intensity      |
|  | SVC Lone Work         |
|  | Compondor             |
|  | Scrambler             |
|  | channel lockout       |
|  | Scanning              |
|  | Key lockout           |
|  | Keypad Tone is enable |
|  | Battery capacity      |

■ **BASIC OPERATION****1.Switch On**

Switch on the radio by turning the Power/Volume switch clockwise till a click is heard, then the radio will be in the state of stand by and you will hear a beep if the dealer has set it.

**2.Adjust Volume**

Press the button preset as canceling squelch to listen to the background noise and rotate the Power/Volume switch to adjust volume.

**3.Select Channels**

Rotate the channel selector to select channels. You will hear voice from the speaker while receiving proper signals.

As shown in the above right figure:  
Zone 1 is the zone of current channel (8 zones from 0 to 7).

H is the transmit power of the channel, H stands for high power, M for middle power while L for low power.

CHANNEL 1 is the current channel (128 channels from 1 to 128).





#### 4. Make a Call

To make a call, press PTT, and speak in normal voice. Please keep your mouth 3~4 cm away from the microphone.

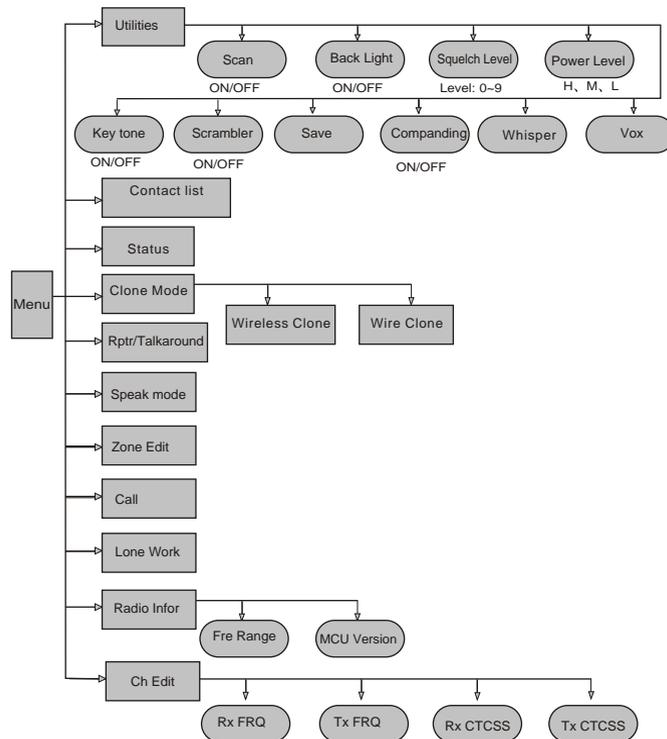
#### 5. Receive a Call

Release the PTT button to receive a call. Your dealer can set CTCSS, DCS, 5 Tone, DTMF, 2 Tone signaling on your radio channels by PC software. If you select a channel that has been preset with the tone signaling, you will not hear any other calls except those from your own system.

#### 6. Operation on menu:

press “” button to enter the menu or confirm any contents; press “” button to return to the previous menu or cancel the set. When entered the menu, select the sub-menu with the “channel selector”, “” or “”.

The menu is as follows:



The operations are as follows:

Set scanning:

1. As shown: in  , press  , then  is shown;
2. Press  , to enter select mode ;
3. Press  /  , then  is shown;
4. Press  , then enter selecting  ;
5. Select Scan On or Scan OFF with  /  , then press  to confirm it.

If can not enter that way, you have to set in PC communications;

#### ● Set back light:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , and  is shown,
4. Press  to select On or OFF ,
5. Select On or OFF with  /  , press  to confirm.

#### ● Set the squelch level:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , then  is shown,
4. Press  to select squelch level, e.g.,  ,
5. Change the squelch level with  /  , then press  to confirm.

#### ● Set power level (high/middle/low)(this function can only be programmed after setting "Valid" in the channel programming):

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , then  is shown,
4. Press  to select, e.g.,  ,

5. Change the power level with  /  , then press  to confirm.

#### ● Set Companding:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , and  is shown,
4. Press  to select  ,
5. Select On or OFF by  /  , press  to confirm.

#### ● Set saving:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , and  is shown,
4. Press  to select, e.g.,  ,
5. Change the save percentage with  /  , press  to confirm.

#### ● Set scrambler:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , and  is shown,
4. Press  to select, e.g.,  ,
5. Select On or OFF by  /  , press  to confirm.

#### ● Set key tone:

1. As shown: in  , press  ,  is shown.
2. Press  to enter select mode,
3. Press  /  , and  is shown,
4. Press  to select  or  ,
5. Select On or OFF with  /  , press  to confirm.

#### ● Set vox:

1. As shown: in  ,press  ,  is shown.
2. Press  to enter select mode.
3. Press  /  , and  is shown.
4. Press  to select  or  .
5. Select  or  with  /  ,press  to confirm.

#### ● Set whisper

1. As shown: in  ,press  ,  is shown.
2. Press  then  is shown.
3. Press  /  to select the level of whisper,press  to confirm.

#### ● Set Rptr/Talkarnd (This function can only be programmed after setting “Valid” in the channel programming):

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select the mode,
4. Select  or  with  /  ,press  to confirm.

#### ● Set speak on mode:

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select the speak on mode,
4. Select with  /  ,press  to confirm.

#### ● Set zone mode:

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select the zone mode,
4. Select  with  /  ,press  to confirm.

#### ● Set call list:

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select the  ,
4. Select with  /  ,press PTT to transmit.

( Note: the following setting including Rx FRQ, Tx FRQ, CTCSS/DCS can only be programmed after setting “Valid” in the channel programming )

#### ● Set Rx FRQ:

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select
4. Press  ,  is shown, enter the set of Rx FRQ,
5. Set the Rx FRQ value with the keypad,
6. Press  to delete, and press  to confirm.

#### ● Set Tx FRQ:

1. As shown: in  ,press  to enter select mode,
2. Press  /  , and  is shown,
3. Press  to select
4. Press  ,  is shown, enter the set of Tx FRQ,
5. Set the Tx FRQ value with the keypad,
6. Press  to delete, and press  to confirm.

#### ● Set Rx CTCSS/DCS:

1. As shown: in **CH 1** , press **✓P1** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **Ch Edit** is shown,
3. Press **✓P4** to select **Ch alias CHANNEL 1**
4. Press **Ⓟ3** , **Rx CTCSS OFF** is shown, enter the set of Rx CTCSS/DCS FRQ.
5. Set the Rx CTCSS/DCS value with the keypad,
6. Press **ⓅX** to delete, and press **✓P4** to confirm.
7. **\*** Stands for the radix point, press **#** to convert among CTCSS、DCS and reverse DCS.

#### ● Set Tx CTCSS/DCS:

1. As shown: in **CH 1** , press **✓P4** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **Ch Edit** is shown,
3. Press **✓P4** to select **Ch alias CHANNEL 1**
4. Press **Ⓟ3** , **Tx CTCSS XXXX** is shown, enter the set of Tx

CTCSS/DCS FRQ,

5. Set the Tx CTCSS/DCS value with the keypad,
6. Press **ⓅX** to delete, and press **✓P4** to confirm.
7. **\*** Stands for the radix point, press **#** to convert among CTCSS、DCS and reverse DCS.

#### ● Set contact list:

1. As shown: in **CH 1** , press **✓P4** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **Contact List** is shown,
3. Press **✓P4** to select,
4. Select the address cable of the call to be made with **Ⓟ2** / **Ⓟ3** ,
5. Check the alias or address code by turning the knob,

6. Key in the address code of the person you are calling,
7. Press **✓P4** to transmit the current contact list.

#### ● Set status:

1. As shown: in **CH 1** , press **✓P4** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **Status** is shown,
3. Press **✓P4** to select,
4. Select the needed status with **Ⓟ2** / **Ⓟ3** ,
5. Check the alias or address code of the status by turning the knob,
6. Press **✓P4** to select the current status.

#### ● Set wireless clone

1. As shown: in **CH 1** , press **✓P4** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **clone mode** is shown,
3. Press **✓P4** to select wireless clone or wired clone, e.g., **Wireless clone** / **wired clone**
4. Select the wireless clone with **Ⓟ2** / **Ⓟ3** , e.g., **Wireless clone**
5. Press **✓P4** to select the clone frequency point, as shown **438 Mhz**. It can be changed with **Ⓟ3** / **✓P4** .
6. Press **✓P4** to select Tx or Rx mode, e.g., **Send Mode** / **Receive Mode**
7. Press **✓P4** to transmit in Tx Mode, as shown **Transmitting**
8. Press **✓P4** to receive in Rx Mode, as shown **Receiving**

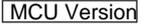
Note: one radio should enter the **Receiving** , and then the other one can enter **Transmitting** .

#### ● Set wired clone

1. As shown: in **CH 1** , press **✓P4** to enter select mode,
2. Press **Ⓟ2** / **Ⓟ3** , and **clone mode** is shown,
3. Press **✓P4** to select wireless clone or wired clone, e.g., **Wireless clone** / **wired clone**
4. Select the wired clone with **Ⓟ2** / **Ⓟ3** , e.g., **Wired clone**

5. Press  to enter the wired clone, as shown  .  
(The two radios should be connected with each other by a clone cable.)

#### ● Check the radio information

1. As shown: in , press  to enter select mode,
2. Press  / , and  is shown,
3. Press  to select,
4. Select  /  with  / ,  
 indicates the radio frequency range;  
 indicates the radio version.

### ■ PROGRAMMABLE BUTTON FUNCTIONS

The dealer can program the 2 Side Buttons and 1 top Button with one of the following auxiliary functions.

None  
 OFF ( “do not set the functions” )  
 Scan  
 lone working  
 Contact list  
 Power selector  
 Show or hide the channel alias  
 Busy Channel Lockout (BCL)  
 Key lock  
 Squelch level selector  
 Companding  
 Scrambler  
 Battery power  
 Zone  
 Monitoring  
 Cancel Squelch

Emergency Alert  
 Back light  
 Rptr/Talkaround  
 Express select channel 1  
 Express select channel 2  
 Call 1, 2, 3 or 4  
 Channel lock  
 Adjust display contrast  
 Man down

#### Notes:

Programmable key can be set as short press or long press.  
 The following functions can be programmed by the dealer:

#### ● None

Set of None.

#### ● Scan

Press the button set as Scan to start scanning. When carrier wave scan is enabled. While in scanning, the radio checks every channel (any channel in any zone) and stops on the channel on which a signal is detected until that signal disappears. If interval between signal disappearing and continuing scanning has been preset, the radio will remain on that channel. Only when there are two channels added in the scan list and the scan function has been activated, the radio can start scanning.

It can be set as: short press: scan, long press: OFF.

1. Press the programmable key once to start scanning (it should be effective in the channel scan list).
2. Press key once again to quit.

#### Notes:

There are 8 zones from 0 (default zone) to 7; and there can be as many as 128 channels in each zone. There are totally 16 scan lists;

you can select any scan list. Every scan list can scan any channels in different zones (16 channels to the most).

### ● Lone working

Press the button set as lone working to start lone working. This mode is to ensure the safety of the user while using the transceiver separately.

▲ It can be set as: short press : lone working, long press: OFF.

1. Press the programmable key once to start lone working;
2. Press once again to quit.

### Notes:

The lone working is connected with the automotive checking in the programming software, and will be effective when both are set.

### ● Contact list

Enter the Contact list quickly:

▲ It can be set as: short press: contact list, long press: OFF.

1. Press the programmable key once to enter the contact list
2. Press again to enter the content interface of the contact list,
3. Select the options in the contact list with  / 
4. Press PTT to transmit
5. Press  to quit.

### ● Power select

Rotate the “channel selector” to enter the “power level” menu quickly. There are high, middle and low levels.

▲ It can be set as: short press: power select, long press: OFF.

1. Press the programmable key once,  will be shown,
2. Press it again,  will be shown,

3. Press it a third time,  will be shown.

### ● Busy Channel Lockout (BCL)

Busy Channel Lockout can prevent you from interfering other radios that using the same channel.

Press the PTT button, if the channel is busy, the radio with BCL function active will make warning sound and prohibit transmitting. To stop the warning sound, please release the PTT button and the radio returns to receiving mode.

▲ It can be set as: short press : Busy Channel Lockout, long press: OFF.

1. Press the programmable key once,  will be shown,

2. Select the character you need with /, e.g.:

3. Press  to confirm.

### ● Key lock

Press the key programmed as “key lock” for one second to lock/unlock the keys for the transceiver.

▲ It can be set as: short press: key lock, long press: OFF.

1. Press the programmable key once,  will be shown,
2. Press it again,  will be shown.

### ● Squelch level Selector

Enter the “Select squelch level” rapidly, 0–9 levels are available with the channel selector.

▲ It can be set as: short press: Select squelch level, long press OFF.

1. Press the programmable key once,  will be shown,

2. Select squelch level with  /  , e.g.:

3. Press  to confirm.

### ● Companding

Enter the Companding mode when press the key programmed as “Companding” ,

▲ It can be set as: short press: Companding, long press: OFF.

1. Press the programmable key once to open the Companding mode,

will be shown,

2. Cancel the mode by pressing it again,  will be shown.

### ● Scrambler

Press the key programmed as “scrambler” to prevent any third party to hear you talking on the phone.

▲ It can be set as: short press: scrambler, long press: OFF.

1. Press the programmable key once to open the scrambler mode,

will be shown,

2. Cancel the mode by pressing it again,

will be shown.

### ● Battery power checking

Display the battery power.

▲ It can be set as: short press: battery power checking, long press: OFF.

1. Press the programmable key once: the battery power will be shown,

2. Press again: close the display.

### ● Monitoring

Press the programmed as “monitor trigger” to hold out CTCSS、DCS、2Tone、5Tone and DTMF signal, and you can hear the signals can not be heard in normal operation, press the key again to return to normal operation.

▲ It can be set as: short press: monitor, long press: OFF.

1. Press the programmable key once to start monitoring,

will be shown,

2. Press again: stop monitoring,  will be shown.

### ● Cancel squelch

Press the key, no matter what the signal or carrier is (including optional signal), squelch will be unmuted.

▲ It can be set as: short press: cancel squelch, long press: OFF.

1. Press the programmable key once to start squelch constantly,

2. If you release it, the squelch will be muted.

### ● Emergency Alert

If press the top key programmed as “Emergency Alert” , you can give the warning ring according to the programming software, or send your identity or background music to your companion or the system.

▲ It can be set as: short press: emergency alert, long press: OFF.

1. Press the programmable key once to start alert,

2. Press it again to stop the alert.

### ● Back light

Turn on/OFF the back light.

▲ It can be set as: short press: back light, long press: OFF.

1. Press and hold on this key, the back light is on,
2. Release it to recover the normal mode.

### ● Rptr/Talkaround

When press the key programmed as “Rptr/Talkaround”, the next transmission will be at the same frequency as at which it is received.

▲ It can be set as: short press: Rptr/Talkaround, long press: OFF.

1. Press the key once,  will be shown,
2. Press  to enter,
3. Press  /  to select the character you need: e.g.:  
 or  ,
4. Press  to confirm.

### ● Instantly select the channel

Shift to the channel you selected instantly, so that you can communicate at the channel you are used to.

▲ It can be set as: short press: instantly select channel 1, long press: OFF.

1. Press the key once to instantaneously select the channel, e.g.:
2. Press again to return.

### ● Call 1, 2, 3, or 4

Press the side button programmed as Call 1, 2, 3, or 4 to transmit the specified code stored in the contact list. Release “Call” button, and speak to the microphone to call with the PTT button still pressed.

▲ It can be set as: short press: Call 1, long press: OFF.

1. Press the key once to make a call (within the current channel), and will quit automatically after the call.

### ● Adjust display contrast

You can adjust the display contrast as per your need.

▲ It can be set as: short press: display contrast, long press: OFF.

1. Press the key once,  will be shown,
2. Press  /  to select the character you need,
3. Press  to confirm.

### ● Change channel display

▲ It can be set as: short press: display channel frequency, channel alias and channel No., long press: OFF.

1. Press the key once, display the channel alias, e.g.:
2. Press it again, the channel frequency will be shown, e.g.:
3. Press it a third time, the channel alias will be shown, e.g.:

### ● Change zone

▲ It can be set as: short press: Zone, long press: OFF.

1. Press the key once,  will be shown,
2. Select zone No. with  / ,
3. Press  to confirm.

### ■ Set Channel lock

▲ It can be set as: short press: channel lock, long press: OFF.

1. Press the key once to perform channel lock, then you can not

choose the channel,    
 will be shown.

2. Press it again to cancel channel lock, Zone 0  
CHANNEL 1 will be shown.

### ● Set man down

▲ It can be set as: short press: man down, long press: off.

1. Press the key once, man down will be shown,
2. Cancel the mode by pressing it again,

### ■ VOX

VOX function enables you to use the radio without manual operations. This function can only be set by the dealer, and you have to be equipped with the specified earphones.

Before using VOX, you must set VOX gain level. Such setting enables the radio to identify the voice volume. If the microphone is too sensitive, the background noise will trigger the radio to transmit. If the microphone is not sensitive enough, it cannot receive your voice when you speak. Make sure to adjust VOX gain level to proper sensitivity.

### ■ Whole Setting

#### ◆ Time-out Timer (TOT)

##### TOT timer:

Time-out timer can prevent any caller from occupying one certain channel for an extended period of the time.

The radio is set with a continuously transmitting limit. If the radio is continuously transmitting longer than the time preset by the dealer, the radio will stop transmitting and warning

##### TOT forbidden period:

A period in which the radio is forbidden to transmit after its overtime activity.

During the period, if the PTT key is pressed, there will be a warning tone, and transmitting is forbidden.

### TOT pre-warning:

The pre-warning will sound before the TOT action.

After the sound of the warning, the timer will take action when the transmitting time has gone beyond the limit.

### TOT reset:

The time delay from releasing the PTT key to the resetting of the timer is limited.

The countdown will go on if the time after releasing the PTT key is shorter than the reset time.

### ◆ Battery Power Saving

The dealer can set the type of this function by programming.

If the battery power saving function is on, 10 seconds after the radio hasn't receive any signals or no operation is being acted, the radio enters battery power saving mode. When a signal is received or any operation occurs, it exits battery power saving mode automatically.

The types include: 1: 1, 1: 2, 1: 4 and OFF.

The automatic battery power saving function decreases the power consumption.

### ◆ CTCSS/ DCS

The dealer can set CTCSS/DCS tones on radio channels, which enable you to ignore (not hear) calls from other irrelevant parties who are using the same channel.

When you receive a signal that has a tone different from the one set on your radio, you will not hear the signal. Likewise, signals that you transmit will only be received by parties whose CTCSS/DCS tones are the same as yours.

Note: Using a CTCSS/DCS channel doesn't mean your calls are private. If other parties' CTCSS/DCS tones are identical with yours, they can hear your calls.

## ■ USER'S RESOLUTION

### ◆ Busy Channel Lockout (BCL)

Busy Channel Lockout can prevent you from interfering other radios that using the same channel.

Press the PTT button when the channel is busy, the radio with BCL function active will make warning sound and prohibit transmitting. To stop the warning sound, please release the PTT button and the radio returns to receiving mode.

The dealer may provide the following two lock mode:

Carrier : it will be locked if there is any Carrier ;

Carrier + CTCSS/DCS: transmitting is permitted if there are matched CTCSS/DCS in the channel.

### ◆ Receiving Squelch Mode

The dealer may set the condition under which to turn on the speakers:

1. CTCSS/DCS and audio squelch: only when the CTCSS/DCS and optional signaling are matchable.
2. Audio squelch: once the optional signaling is matchable.
3. CTCSS/DCS squelch: when the CTCSS/DCS is matchable.
4. Carrier squelch: once there is any Carrier .
5. CTCSS/DCS or audio squelch: when the CTCSS/DCS is matchable, or when optional signaling are matchable.

### ◆ DTMF signaling

The dealer can set this function by programming.

There are 4 systems of which the parameters can be set.

After set a DTMF code in the “code sequence”, select DTMF system in the “DTMF code”, then select the correspondent DTMF code cable in the “user's resolution” and transfer it with PTT. Set a DTMF code in the “decoding sequence”, add the sequence into the decoding cable in “DTMF decoding”, then select the correspondent decoding cable. The dealer may also set the “decoding replay” .

### ◆ 2TONE signaling

The dealer can set this function by programming.

There are 4 systems of which the parameters can be set, e.g.: the duration of the first and the second tone, the duration of the long tone and audio spacing, etc. Select the audio frequency ( 3106.0~288.0hz step size 0.1hz) in “encoding sequence”, and whether the tones sent are long or two tones, select 2TONE system and select the correspondent 2TONE code cable in “2TONE List”, then transfer it with PTT. Select the audio frequency ( 3106.0~288.0hz step size 0.1hz) in “decoding sequence”, and whether the tones received are long or two tones, then select the correspondent decoding cable in the “user's resolution”. The dealer may also set the “decoding replay” .

### ◆ 5TONE signaling

The dealer can activate or inactivate this function by programming.

5-Tone has 9 encoding formats: CCIR1, CCIR2, ZVEI1, ZVEI2, SVEI3, EEA, EIA, USER DEFINED 1, and USER DEFINED 2. The last two formats are user defined.

#### 1) 5-Tone Decoding

The decoding template is 5-tone decoding. If the decoding template matches the encoding template, decoding succeeds.

When receiving proper 5-tone signaling, squelch will be activated according to the “RX Squelch Mode” defined by the user. You can receive the call and LED flashes orange.

After the radio decoding succeeds, the radio will work according to the decoding call response set by the dealer.

#### 2) 5-Tone Encoding

Encoding template consists of at least one and at most three encoding sequences, and each decoding sequence can be set with 5-Tone, and DTMF. If it is set with 5-Tone, you need to program its

content.

If the PTT ID on the channel you select has been set with 5-Tone, 5-Tone signaling will be transmitted when making a call; or transmit 5-Tone signal by pressing the Call 1/2/3/4 button,, which can be set by the dealer.

#### ◆ Transmit beginning/ending signaling (PTT ID)

The identify signal of transmit beginning/ending are used to maintain or disconnect some repeaters or phone system.

“Transmit beginning” is used to connect routine repeaters and auxiliary facilities. If the ID transmitted is matchable with that of the repeaters, the repeaters and auxiliary facilities are available.

“Transmit ending” is used to disconnect routine repeaters and auxiliary facilities. If the ID transmitted is matchable with that of the repeaters, the repeaters and auxiliary facilities are disconnected.

### ■ Problems and troubleshooting

| No. | Problems                      | Solution   |
|-----|-------------------------------|--|
| 1   | No display after switched on. | A. Battery power may be insufficient. Recharge or replace the battery pack.<br>B. The power switch may be broken, replace the switch.<br>C. CPU may be broken, replace the IC.<br>D. Regulator tube Q45 may be broken, replace the IC. |
| 2   | Phase locked loop unlocked    | A. Phase locked loop Crystal Oscillator X1 may be broken, replace it.<br>B. Oscillator tube may be broken, replace it.<br>C. Phase locked loop IC2 may be broken, replace the IC.  |
| 3   | Cannot                        | A. The frequencies of both users are not the same, select the same frequency channel again.  |

|   |   |  |
|---|---|--|
|   | transmit.   | B. The CTCSS/DCS signaling of both users are not the same, set it with PC.<br>C. Beyond the efficient communication range.   |
| 4 | No signal   | A. Make sure the antenna is well connected.<br>B. Low sensibility, trimming “computer test mode” .<br>C. HF amplifier may be broken, replace it.<br>D. The squelch level is too high, which makes the squelch unable to switch on, reset it by PC.<br>E. Mixer tube Q19 may be broken, replace the tube.<br>F. Frequency Modulation IC4 may be broken, replace the IC. |
| 5 | The transmitting red light is on, but no voice is heard | A. Power-amplifier tube no power output, replace the tube.<br>B. Replace the microphone if it is broken.<br>C. Operational Amplifier IC14 may be broken, replace it.   |
| 6 | Receiving green light is on, but no voice is heard      | A. Replace the speaker if it is broken.<br>B. Audio power amplifier IC9 may be broken, replace it.<br>C. Switch Tube Q48 may be broken, replace it.<br>D. Operational Amplifier IC6 may be broken, replace it.   |
| 7 | Abnormal programming                                    | A. Make sure the wires are well connected.<br>B. Abnormal output of the RS-232 serial port of the computer, check the computer .<br>C. Abnormal connection of MIC and SPK jack, check the jack.  |

## Major Specifications

| Model                    | PT6500  |             |
|--------------------------|---|-------------|
| Frequency (Mhz)          | (1) 136~174   | (2) 400~470 |
|                          | (3) 450~520   | (5) 350~400 |
| Modulation               | 16KΦF3E/11KΦF3E   |             |
| Number of Channels       | 128   |             |
| Channel Spacing          | 25 kHz/12.5kHz/20 kHz   |             |
| MF                       | 1st MF: 51.65MHz 2nd MF: 450kHz   |             |
| Working Voltage          | 7.5V cathode Grounding  |             |
| Working Temperature      | -25 C ~ +55 C   |             |
| Antenna Impedance        | 50 Ω  |             |
| Microphone Impedance     | 2.2k Ω  |             |
| Battery (Standard) Model | Model: KB-36C, Li-poly battery DC 7.4V, 1750mAh<br>time of use: 8 hours (5: 5: 90 period) |             |
| Dimensions (WxHxD)       | 56X120X35mm   |             |
| Weight                   | 310g (with battery and antenna)   |             |

## Status setting (by the dealer)

Model: \_\_\_\_\_ Serial No.: \_\_\_\_\_

### A) Channel setting:

| Channel No. | Receiving frequency | Transmitting frequency | CTCSS/DCS decoding | CTCSS/DCS encoding | Power | Band width | Scan -ning | BCL |
|-------------|---------------------|------------------------|--------------------|--------------------|-------|------------|------------|-----|
| 1           |                     |                        |                    |                    |       |            |            |     |
| 2           |                     |                        |                    |                    |       |            |            |     |
| 3           |                     |                        |                    |                    |       |            |            |     |
| 4           |                     |                        |                    |                    |       |            |            |     |
| 5           |                     |                        |                    |                    |       |            |            |     |
| 6           |                     |                        |                    |                    |       |            |            |     |
| 7           |                     |                        |                    |                    |       |            |            |     |
| 8           |                     |                        |                    |                    |       |            |            |     |
| 9           |                     |                        |                    |                    |       |            |            |     |
| 10          |                     |                        |                    |                    |       |            |            |     |
| 11          |                     |                        |                    |                    |       |            |            |     |
| 12          |                     |                        |                    |                    |       |            |            |     |
| 13          |                     |                        |                    |                    |       |            |            |     |
| 14          |                     |                        |                    |                    |       |            |            |     |
| 15          |                     |                        |                    |                    |       |            |            |     |
| 16          |                     |                        |                    |                    |       |            |            |     |
| 17          |                     |                        |                    |                    |       |            |            |     |
| 18          |                     |                        |                    |                    |       |            |            |     |
| ---         |                     |                        |                    |                    |       |            |            |     |
| 128         |                     |                        |                    |                    |       |            |            |     |

**B) Optional function:**

2. 1 Time-out timer (TOT) :  
15~600 s
2. 2 Squelch level:  
1~9
2. 3 Battery saving:  
Off  1: 1  1: 2  1: 4

**C) Auxiliary functions button setting:****Top button**

- None
- Voice reporting selector
- Rptr/Talkaround
- Call1/2/3/4
- Lone Working
- Emergency Alert
- Cancel Emergency Alert
- Man Down
- Scanning
- High/low Power Shift
- Squelch Level Adjuster
- Monitoring Open/Cancel
- Squelch Open/Cancel
- Lock Key
- Companding
- Scrambler
- Battery Capacity

**Side button1**

- None
- Voice Reporting Selector
- Rptr/Talkaround
- Call1/2/3/4
- Lone Working
- Man Down
- Scanning
- High/low Power Shift
- Squelch Level Adjuster
- Monitoring Open/Cancel
- Squelch Open/Cancel
- Lock Key
- Companding
- Scrambler
- Battery Capacity

**Side button2**

- None
- Voice Reporting Selector
- Rptr/Talkaround
- Call1/2/3/4
- Lone Working
- Man Down
- Scanning
- High/low Power Shift
- Squelch Level Adjuster
- Monitoring Open/Cancel
- Squelch Open/Cancel
- Lock Key
- Companding
- Scrambler
- Battery Capacity


**DECLARATION  
OF CONFORMITY**
**CE 1313**

We, Kirisun Electronics(Shenzhen) Co., Ltd.  
6/F, Bldg.H-2,East Industrial Zone Of Overseas  
Chinese Town,Shenzhen 518053, China

Declare on our sole responsibility that this equipment complies with the essential requirements of the Radio and Telecommunication Terminal Equipment Directive, 1999/5/EC, and that any applicable Essential Test Suits measurement have been performed.

Description of equipment: FM Handheld Transceiver  
Model No.: PT6500-01

This compliances is based on conformity with the following harmonised standards or documents:

- (1). ETSI EN301489-1 V1.6.1(2004-12)
- (2). ETSI EN301489-5 V1.3.1(2002-08)
- (3). ETSI EN300086-1 V1.2.1(2001-03)
- (4). ETSI EN300086-2 V1.1.1(2001-03)
- (5). EN60950: 2001+A11: 2004

Shenzhen, 10 Dec 2007  
Place and date of issue

WenLiang, Fu  
General Manager

Signature  
Kirisun Electronics Co., Ltd


**DECLARATION  
OF CONFORMITY**
**CE 1588**

We, Kirisun Electronics(Shenzhen) Co., Ltd.  
6/F, Bldg.H-2,East Industrial Zone Of Overseas  
Chinese Town,Shenzhen 518053, China

Declare on our sole responsibility that this equipment complies with the essential requirements of the Radio and Telecommunication Terminal Equipment Directive, 1999/5/EC, and that any applicable Essential Test Suits measurement have been performed.

Description of equipment: FM Handheld Transceiver  
Model No.: PT6500-02

This compliances is based on conformity with the following harmonised standards or documents:

- (1). ETSI EN301489-1 V1.6.1(2004-12)
- (2). ETSI EN301489-5 V1.3.1(2002-08)
- (3). ETSI EN300086-1 V1.2.1(2001-03)
- (4). ETSI EN300086-2 V1.1.1(2001-03)
- (5). EN60950: 2001+A11: 2004

Shenzhen, 10 Dec 2007  
Place and date of issue

WenLiang, Fu  
General Manager

Signature  
Kirisun Electronics Co., Ltd