KIRISUN

Professional wireless communication system solution supplier

INSTRUCTION MANUAL

FP560

Digital Two-way Radio

Instruction Manual

FP560

Digital Two-way Radio

We are very grateful for your purchasing KIRISUN brand two-way radios produced by Kirisun Communications Co., Ltd.

We believe KIRISUN two-way radio, which always incorporates the latest technology, can bring great convenience to your life and work.

We also believe that the quality and function of KIRISUN two-way radio can meet your demands for reliable communication.

Important Information

◆Copyright

Kirisun and our authorized partners own the intellectual property of all the parts of this product (include accessories). Any design and materials may not be modified, copied, extracted or translated without the authorization of Kirisun or its authorized parities.

Due to the update or modification of the product, Kirisun owns the right to change the specifications of software and hardware described in this manual without further notice. Specifications and information contained in this manual are for reference only.

◆ Safety Information

Compliance with RF Exposure Standards

Your radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% transmitting. In terms of measuring RF energy for compliance with the IEEE and ICNIRP exposure limits, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

Your radio complies with the following of RF energy exposure standards and guidelines
Institute of Electrical and Electronic Engineers (IEEE) C95.1-1992
Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition
International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

◆ Operating Instructions to Control RF Exposure

To decrease your exposure and ensure compliance with the occupational/controlled environment exposure limits, please always adhere to the following procedures.

1. Transmit no more than the rated duty factor of 50% of the time. To transmit, press the PTT button, and to receive the call, release the PTT button.
2. Keep your radio in a vertical position in front of the face with the microphone 5cm away from your mouth while transmit.
3. When worn on your body, keep the antenna 2.5cm away from your body while transmit.
4. Do not transmit when the radio is not equipped with an antenna. Transmitting without an antenna may damage the product and result RF discomfort.

◆ Using the Designated Accessories

Use the antenna, battery, adapter or charger supplied or sold by Kirisun only, otherwise it will causes damage to

the product.

If you want to purchase or replace the accessories, please contact your local dealer or Kirisun.

◆ Area Restrictions

1. To avoid of the problems caused by electromagnetic interference or electromagnetic compatibility, turn off the radio in any facilities where posted notices instruct you to do so, such as hospital and other health care facilities. Turn off the radio when on board an aircraft, if instructed to do so.
2. In the vehicle with an air bag, do not place the radio in the area over an air bag or in the air bag deployment area.
3. Turn off the radio before entering any area with a potentially explosive atmosphere or blasting caps.
4. Do not operate the radio, disassemble or charge the battery in the potentially flammable and explosive atmosphere (such as gas station, coal gas station, etc.).
5. Do not place the radio under the direct sunlight or near the area with heating devices.
6. Do not place the radio in the area with great dust, moisture or drips, or on the unstable surface.

◆ Operating Attentions

Antenna

Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

Batteries

All batteries can cause property damage and/or bodily injury, such as burns, if a conductive material such as jewelry, keys, or beaded chains touches exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Excessive care in handling any charged battery, particular when placing it inside a pocket, purse, or other container with metal objects. To reduce the potentially damage, do not expose the battery in the fire, or disassemble and extrude the battery.

To realize the best performance of the battery, change the battery once a year.

Maintenance

Do not disassemble the radio by yourself. This product can only be maintained by the professional technicians. Contact us or your local dealer for help if you want to re-develop or modify the radio.

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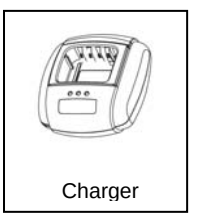
1 Unpacking and Checking

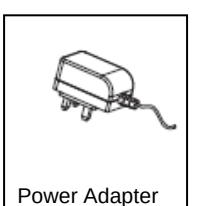
Unpack the radio carefully. We recommend that you check the radio and the supplied accessories listed in the following table before discarding the packing material. If any damage or loss has occurred during shipment, please contact the deliveryman or the dealer without delay.

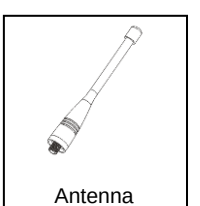
ITEM	QUANTITY
Two-way radio	1
Antenna	1
Battery	1
Belt Clip	1
Charger	1
Power Adapter	1
Hand Strap	1
Instruction Manual	1


Charger

Battery

Belt Clip and Screws


Power Adapter

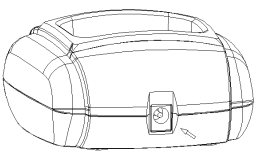

Antenna

Hand Strap

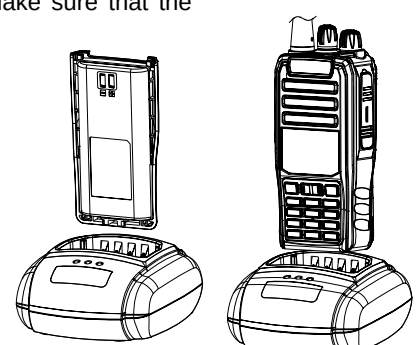
2 Preparing Your Radio for Use

2.1 Charging the Battery

Plug the power adapter into the suitable AC socket and connect the power adapter to the charger base. Three LED lights flash about one second. And then green LED will light on while charging normally.



Insert the battery or the radio with battery into the charger. Make sure that the radio is off and the battery is well connected with the charger. Then the red LED lights on and starts charging the battery. After about five hours, the green LED lights on, and it indicates the battery has been full charged.



When the LED turns green, staying the battery be charged for more 1 to 2 hours, the performance of the battery will up to the best. Then take off the power adapter from the AC socket.

While the yellow LED flashing, it means that the charging temperature or circuit is abnormal, the charger enters the

protect mode. In this status, do not force to charge the battery, please remove the battery and cut off the power.

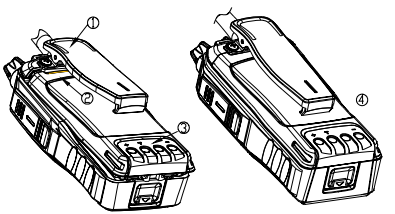
Note:

- The battery is not fully charged in the factory. Please ensure complete fill before initial use
- KB-515L Li-ion battery of Kirisun is applicable to this radio.
- When charging the battery for the first time after purchase or long-time storage (over 2 months), please repeat charging several times for the battery to achieve normal capacity. Make sure that the battery is charged at least once every 3 months.
- Do not recharge the battery if it has been fully charged or the radio is not in the low battery alarm state; otherwise, it will affect the battery's life time and performance. Remove the battery from the charger after complete the charge.
- Please recharge the battery and do not force to turn on the radio when the radio is in the low battery alarm state; otherwise it will shorten the battery's life time and performance.
- The battery of KB-515L has a protection circuit inside. Power supply will be cut off when the power is too low. The red LED will not light immediately while put the battery into the charger, the LED indicator will be normal after 1~5minutes later.

2.2 Installing/Removing the Battery

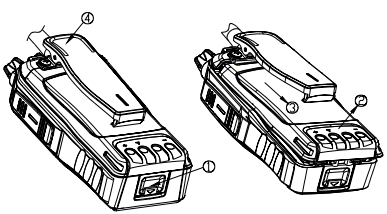
Installing the Battery

If the radio have a belt clip, press down the belt clip first as figure① shows; match the two bumps of the battery to the two slots of the radio and put inside as figure② shows. Then press down the bottom of the battery as figure③ shows. Until the battery locked and the push fastener is eject completely as figure④ shows.



Removing the Battery

While removing the battery, press down the push fastener of the radio as figure① shows and the bottom of the battery will eject automatically as figure② shows. Then separate the battery as the figure③ shows. If the radio have belt clip, press the belt chip as figure④ shows and pull out the battery downwards.

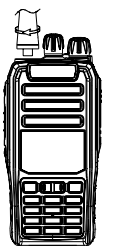


Note:

- Do not short-circuit the battery or discard in the fire.
- Do not disassemble the battery by yourself.

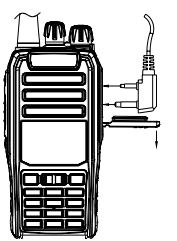
2.3 Installing/Removing the Antenna

Set the antenna in its receptacle and turn clockwise to fasten it. To remove it, please rotate itcounter-clockwise.



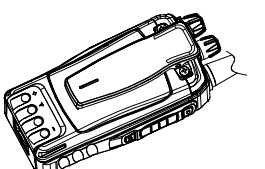
2.4 Installing the External Speaker/Microphone

Open the cover for external speaker/MIC jacks, and then insert the external speaker/MIC plug into the jacks on the radio.



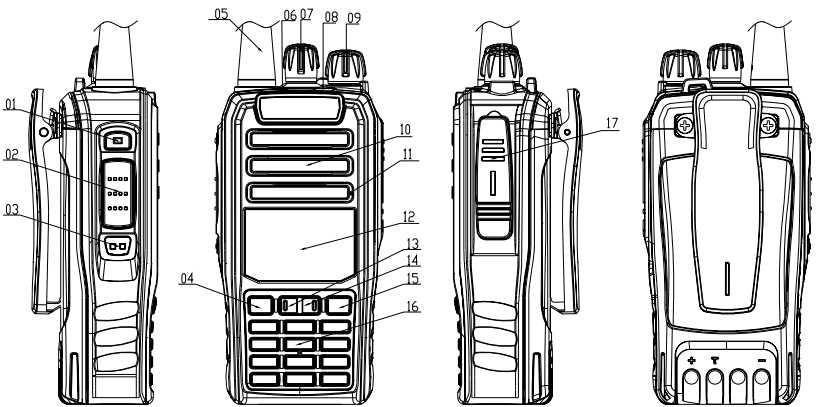
2.5 Installing the Belt Clip

Align the screw holes on the belt clip, which is located on the back of the radio, and fasten them with the screwdriver. To remove the belt clip, loosen the screws.



3 Product Overview

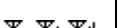
3.1 Radio Controls

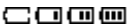


1. Side button 1 (programmable button)
2. PTT (push to talk) button
3. Side button 2 (programmable button)
4. Menu Button

5. Antenna
6. LED indicator
7. Channel knob
8. Top button (programmable button)
9. On/Off/ Volume Control Knob
10. Speaker
11. MIC
12. LCD Display
13. Up Key
14. Down Key
15. Cancel Key
16. Keypad
17. Speaker/MIC connector

3.2 Icon Indicator

No.	Icon Display	Icon Name
1		Receive Signal Strength Indicator. The more the number of the bars, the stranger the signal, otherwise, the signal strength is weak. This Icon only display while receiving.

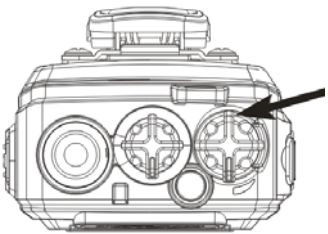
2		Battery Indicator. The more number of bars, the more power it has.
3	L	Low power is used on the current channel.
4	M	Middle power is used on the current channel.
5	H	High power is used on the current channel.
6		There are unread message in the inbox.
7		The inbox is full.
8		The encryption is activated on current channel.
9		The radio is in emergency mode.
10		The radio is in scanning mode.
11	① ②	The radio stopped on the priority channel 1 or priority channel 2.
12	VOX	VOX has enabled on the current channel.
13		All Call
14		Group Call
15		Individual Call
16		Out call log
17		In call log

18		Digital Channel
19		Analog Channel
20		This option has been selected.

3.3 LED Indicator

Indicator State	Radio State
Red LED lights on	The radio is transmitting.
Green LED lights on	The radio is receiving(voice or message) or there is a activity on the current channel.
Red and green LED flashes alternately.	In the mixed mode channel, the red and green LED will flash alternately after the nor-priority call which is different from transmit mode received.
Orange LED flashes.	It is in the digital call hang time.
Red LED flashes.	The radio is in emergency mode or the radio is low.
Orange LED lights on.	Nor programmed channel.
Green LED lights on.	The radio is scanning.

4 Basic Operation



4.1 Powering On

Clockwise rotate the volume control knob until a click is heard to turn on the radio. The radio will make a sound of “Di…” if programmed, and the current channel number will be annunciated.

4.2 Operating the Menu

Press the menu button to enter into menu in the home screen. Press “Up” and “Down” key to select the menu item then press “menu” key to enter to it. Return to the prevision menu or the home screen when press “return” button.

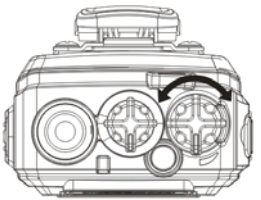
4.3 Selecting a Zone

A Zone is a group of channels exhibiting the same property, allowing users quickly switch from a channel group to a different channel group. The radio can be set to have up to16 zones, each with a maximum of 16 channels.

You can switch a zone by the programming button which is preset to “Zone Up” or “Zone Down”. Or you can enter to menu to select a zone.

4.4 Adjusting the Volume

Rotate the power/volume button to adjust the volume.



4.5 Selecting a Channel

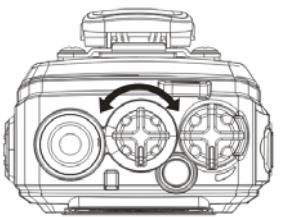
Rotate the channel knob to select a channel.

The icon“ ” will be displayed when the current channel is digital channel.

The icon “ ” will be displayed when the current channel is analog channel.

The icon “ ” will be displayed when the current channel is set to mixed mode and digital fixed channel.

The icon “ ” will be displayed when the current channel is set to mixed mode and analog fixed channel.

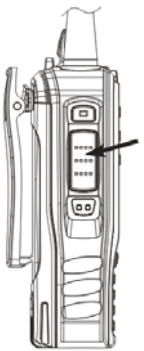


4.6 Initialing a digital call

4.6.1 Initiate a Call to the Default Contact

If you set the default contact at every channel, you can press the PTT button to call the default contact.

4.6.2 Selecting a Contact and Initiate a Call



You can also make a call via contacts. Enter contact list menu and select one specific contact, then press PTT to initiate a call.

4.6.3 Manual Dial and Initiate a Call

You can also make a call by "Manual Dial". Enter the "Contacts" menu and then enter "Manual Dial" sub-menu, directly enter contacts' ID number, and press PTT key to initiate a call.

4.7 Receiving and Answering the Call

When a call is received in the standby mode:

(1) Green LED indicator lights on;

(2) The call type, alias or ID and incoming call icon is displayed on the LCD.

(3) And voice will be heard;

(4) You can press PTT to call back to current contact within the hang time duration

Note:

To receive a group call, your radio must be configured as part of that group. (Dealer set it via CPS).

4.8 Sending a Message

(1) Enter into the menu, and then enter into the "message" menu.

(2) Select "writing message" to edit the message.

(3) Press the “menu” button to enter to “contacts” and select the contact to send the message.
(4) The “successful” will be shown when sent successfully, or “failed” will be shown.

4.9 Receiving a Message

When a message is received, the LCD will display “a new message” and the icon ✉ will be shown. Enter to the “menu” and select the “message”, then enter to the “inbox”. The message marked “*” is a unread message.

5 Advanced Functions

5.1 Time-out Timer

This function forbids you from occupying the channel for a long time. If the continuous transmitting time exceeds the setting time by dealer, the radio sends out a warning tone and stops transmitting. Release the PTT button to stop the warning tone. After a period of time, which is set by dealer, you can transmit again. And if the radio is programmed with pre-alert function by the dealer, the radio will send out an alert before the time of Time-out Timer expires.

5.2 Scan

Scan function helps you to receive calls from other channels, so as to supervise the activities of the

personnel.

During scanning, the radio checks every channel in the scan list and stops on the channel which a signal is detected.

Scan revert channel

While scanning, press the PTT Button to make the radio transmit on a default channel. This channel can be programmed by your dealer.

5.3 Radio Kill/Revive

This function allows one radio to be killed or revived. The radio to be killed cannot make or receive calls. The radio can only revive through radio sends a revive order or be reprogrammed. After revived, the radio can work normally again. This function is used to manage the unauthorized usage of the radio, prevent misappropriating the radio which is lost.

5.4 Emergency Alarm

If you are in danger and this function is enabled, you can press Emergency Alarm On shortcut key to send an emergency alarm.

The means of sending emergency alarm are decided by the following parameters: Alarm Type, which defines the audio and visual reaction when the radio sends an alarm; Alarm Mode, which defines the content sent to the other members when the radio sends an alarm. The above parameters can be programmed by dealer.

To turn off the Emergency Alarm, press the programmed Emergency Alarm Off shortcut key.

Alarm Type:

◆None: No alarm function (Default setting); you cannot send an emergency alarm;

◆Siren Only: The radio only emits siren locally;

◆Regular: The radio provides audio and visual indication that it is in Emergency mode and can receive the signal from others;

◆Secret: No audio and visual indication. And the radio cannot receive the signal from others;

◆Secret with voice to follow: No audio and visual indication. But the radio can receive the signal from others.

Alarm Mode:

◆Emergency Alarm: The radio sends out an emergency alarm, and then exits the emergency alarm status automatically.

◆Emergency Alarm w/ Call: An emergency alarm is sent, after while an emergency call can be transmitted by pressing the PTT Button.

◆Emergency Alarm w/ Voice to Follow: The radio sends out an emergency alarm, and then sends out background tone periodically and automatically through emergency call.

Note:

Emergency Alarm: The radio sends out a signal to alert other member.

Emergency Call: A priority call on channel, so as to make sure the successful communication under

emergency condition.

6 Troubleshooting

No.	Problem	Causes and Solutions
1	The radio cannot be powered on.	A. The battery may be used up. Recharge it or change the battery to try again. B. The power switch is in failure. Please change it.
2	You can not communicate with other members	A. The frequency settings may be different from others. Set your TX/RX frequencies to be the same as others. B. The CTCSS/CDCSS signaling may be different from others. Set your CTCSS/CDCSS signaling to be the same as others. C. Your place may be too far away from the others, beyond the radio's coverage area.

3	The radio cannot receive signals	A. The antenna may get looser or may be improperly installed. Re-install the antenna. B. The frequency settings may be different from others. Set your TX/RX frequencies to be the same as others. C. Your place may be too far away from the others, beyond the radio's coverage area.
4	During receiving, LED is green but no voice.	A. Check whether the volume is smallest or not. If so, increase the volume. B. Check whether the speaker is broken or not. If so, change the speaker. C. You may be interrupted by radios using the same frequency.
5	CPS programming failed.	A. Connection between the radio and PC is not good enough. Check and try again. B. Earphone interface board has poor contact with external programming cable. If so, change the Earphone interface board.

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