Kirisun

INSTRUCTION MANUAL
DP580-01 Digital Two-way Radio

http://en.kirisun.com

User Guide
DP580-01
Digital Two-way Radio

We are very grateful for your purchasing　Kirisun brand two-way radio produced by Kirisun

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.

Notice to user

◆ Copyright

◆ 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. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
3. Adapter shall be installed near the equipment and shall be easily accessible.
4. The device operating temperature range is -20~40°.
5. The plug considered as disconnect device of adapter.
6. The device complies with RF specifications when the device used at 25mm from your front face and 0mm from your body to antenna.
7. 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, or otherwise it 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.

Regulatory

CE Kirisun directive (EU) No 2014/53 of the European Parliament and of the Council of 16 April 2014 on harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (RED) and that any applicable Essential Test Suits measurement have been performed.

Restrictions Frequencies are valid for the European country

Country	Frequency Range(MHz)	Max.transmit power (W)
Germany(DE)	146 MHz - 146.36 MHz,146.92 MHz - 148.4 MHz, 149.14 MHz - 149.88 MHz,150.05 MHz - 151.06 MHz, 151.1 MHz - 153 MHz,153.74 MHz - 155.58 MHz, 155.76 MHz -156MHz,158.34 MHz - 160.22 MHz, 160.24 MHz - 160.28 MHz,160.32 MHz - 160.48 MHz,	5

	160.56 MHz - 160.6 MHz,161.02 MHz - 161.04 MHz, 161.1 MHz - 161.12 MHz,161.16 MHz - 161.2 MHz, 162.94 MHz -164.82 MHz,164.84 MHz - 164.88 MHz, 164.9 MHz - 165.18 MHz,165.7 MHz - 166.44 MHz, 166.84 MHz - 166.86 MHz,166.9 MHz - 166.92 MHz, 166.94 MHz - 166.96 MHz,166.98 MHz - 167.1 MHz, 167.18 MHz - 167.54 MHz,170.3 MHz - 170.54MHz, 170.56 MHz - 170.58 MHz,170.66 MHz - 170.72 MHz, 170.8 MHz - 170.84 MHz,171.44 MHz - 171.46 MHz, 171.5 MHz - 171.52 MHz,171.54 MHz - 171.56 MHz, 171.58 MHz - 171.7 MHz,171.78 MHz - 172.15 MHz,	
France (FR)	151 MHz - 174 MHz	5
United Kingdom (UK)	137.975 MHz - 138.2 MHz,139.51875 MHz - 140.98125MHz, 143 MHz - 144 MHz,148.01875 MHz - 148.98125 MHz,	5

	153.025 MHz - 153.475 MHz,154 MHz - 155 MHz, 157.205 MHz - 165.0375 MHz,165.05 MHz - 173.09375 MHz	
Greece(EL)	138 MHz - 143.6 MHz,146 MHz - 147.6 MHz, 147.9 MHz -148.2 MHz,150.05 MHz - 151.6 MHz, 154.5 MHz - 156.7625 MHz,156.8375 MHz -161.9625 MHz, 162.0375 MHz - 174 MHz	5
Spain(ES)	146 MHz - 149.9 MHz,150.05 MHz -156.4875 MHz, 156.5625 MHz - 156.7625 MHz,156.8375 MHz - 174 MHz	5
Ireland (IE)	154 MHz - 156.7625 MHz	5
Belgium(BE)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 169.4 MHz, 169.825 MHz - 174 MHz	5
Croatia (HR)	138 MHz - 144 MHz,146 MHz-156 MHz, 157.45 MHz - 160.6 MHz,160.975 MHz - 161.475 MHz,	5

	162.0375 MHz - 174 MHz	
Cyprus (CY)	146 MHz -156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 174 MHz	5
Portugal (PT)	148 MHz - 149.9 MHz,150.05 MHz - 156.4875 MHz 156.8375 MHz - 174 MHz	5
Malta(MT)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.0375 MHz - 174 MHz	5
Luxembourg (LU)	146 MHz - 174 MHz	5
Bulgaria(BG)	146 MHz -161.9625 MHz,161.9875 MHz-174 MHz	5
Latvia (LV)	146 MHz - 148 MHz,148.8 MHz - 149.9 MHz, 150.05 MHz - 156.4875 MHz,156.5625 MHz - 156.7625 MHz, 156.8375 MHz - 174 MHz	5
Slovenia(SI)	146 MHz -156.4875 MHz,156.9375 MHz - 161.9625 MHz,	5

	162.0375 MHz - 174 MHz	
Czech Republic (CZ)	148.2 MHz - 149.05 MHz,150.05 MHz - 150.975 MHz, 152.8 MHz - 153.65 MHz,157.45 MHz - 158.375 MHz	5
Denmark(DK)	146 MHz - 149.9 MHz,150.05 MHz - 153 MHz, 154 MHz - 156.4875 MHz,156.8375 MHz -174 MHz	5
Estonia(EE)	150.05 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 169.4 MHz, 169.825 MHz - 174 MHz	5
Lithuania(LT)	146 MHz - 156 MHz,157.45 MHz - 160.6 MHz, 160.975 MHz - 161.475 MHz,162.05 MHz - 174 MHz	5
Hungary(HU)	148 MHz - 149.9 MHz,156 MHz - 156.7625 MHz, 156.8375 MHz - 167.3 MHz,169.6375 MHz - 169.7125 MHz, 169.7625 MHz - 169.7875 MHz,169.8125 MHz - 174 MHz	5

Austria(AT)	156.4875 MHz - 156.5125 MHz，160.3 MHz - 160.300001 MHz，169.4 MHz - 169.8125 MHz	5
Poland(PL)	147.8 MHz - 147.975 MHz，150.05 MHz - 151.625 MHz，151.775 MHz - 156 MHz，157.425 MHz - 160.6 MHz，160.975 MHz - 161.475 MHz，162.05 MHz - 164.475 MHz，167.5 MHz - 168.5 MHz，169.825 MHz - 170.85 MHz，171.15 MHz -174 MHz	5
Romania (RO)	146 MHz - 149 MHz，149.55 MHz - 149.8 MHz，150.05 MHz - 156 MHz，159.175 MHz - 159.5 MHz，160 MHz - 160.6 MHz，160.975 MHz - 161.125 MHz，161.275 MHz - 161.475 MHz，164.05 MHz - 164.3 MHz，165.2 MHz -169.4 MHz，169.6125 MHz -174 MHz	5
Slovakia(SK)	146 MHz - 149.9 MHz，150.05 MHz - 153.5625 MHz，	5

	155.5125 MHz - 156 MHz，156.8375 MHz - 161.9375 MHz，162.5 MHz - 164.4875 MHz，165.5125 MHz - 170.4875MHz，172.5125 MHz - 174 MHz	
Finland(FI)	146.30625 MHz - 146.79375 MHz，146.80625 MHz - 146.89375 MHz，146.90625 MHz - 148.26875 MHz，148.28125 MHz - 149.39375 MHz，149.40625 MHz - 149.89375 MHz，150.05 MHz - 151 MHz，151.00625 MHz - 151.39375 MHz，151.40625 MHz - 151.49375 MHz，151.50625 MHz - 152.86875 MHz，152.88125 MHz - 153.99375 MHz，154.00625 MHz - 154.49375 MHz，154.50625 MHz - 154.64375 MHz，154.65625 MHz - 154.89375 MHz，157.45 MHz - 158.8 MHz，161.175 MHz - 161.375 MHz，162.05 MHz - 163.4 MHz，	5

| | 165.3 MHz - 165.75 MHz，165.775 MHz - 165.975 MHz，166 MHz - 167.675 MHz，167.7 MHz - 168.55 MHz，168.575 MHz - 169.4 MHz，169.61875 MHz -169.80625MHz，169.825 MHz - 169.875 MHz，169.9 MHz - 170.35 MHz，170.375 MHz - 170.575 MHz，170.6 MHz - 172.275 MHz，172.3 MHz - 173.15 MHz，173.175 MHz - 174 MHz， | |

Restrictions are valid for the European country

Restrictions are valid for the following countries:

Germany(DE),France (FR),United Kingdom (UK), Greece(EL),Spain(ES),Ireland (IE),Belgium(BE), Croatia (HR),Cyprus (CY),Portugal (PT), Malta(MT),Luxembourg (LU),Bulgaria(BG),Latvia (LV),Slovenia(SI),CzechRepublic(CZ),

Denmark(DK),Estonia(EE),Lithuania(LT),Hungary(HU),Austria(AT), Poland(PL),Romania (RO),Slovakia(SK), Finland(FI), Sweden(SE), Italy(IT), Netherlands(NL).

IC Statement

This device complies with Industry Canada licence‐exempt RSS standard(s): Operation is subject to the following two conditions:

(1)   This device may not cause interference, and

(2)   This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1)   l'appareil ne doit pas produire de brouillage, et

(2)   l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Push-to-Talk and body-worn configurations. The device complies with RF specifications when the device used at 25 mm from your front face and 0 mm from your body. All qualified end-users of this device must have the knowledge to control their exposure conditions and/or duration to comply with occupational/controlled Exposure limit and requirements. A label, as described in this filing, must be displayed on the device to direct users to specific training information

for meeting occupational exposure requirements. The highest reported SAR values for Front-of-face: 1.361W/Kg, body-worn: 3.108W/Kg.

Warning! : This portable 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.

FCC Statement

– This radio is designed for and classified as "Occupational/Controlled 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; NOT intended for use in an General population/uncontrolled environment

– DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.

– DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.

– This transmitter may operate with the antenna(s) documented in this filing in Push-to-Talk and body-worn configurations. RF exposure compliance is limited to the specific belt-clip and accessory configurations as documented in this filing and the separation distance between user and the device or its antenna shall be at least 2.5 cm.

– The highest reported SAR values for Front-of-face: 1.215W/Kg , body-worn: 4.468W/Kg.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

– For a Class B digital device or peripheral, the instructions furnished to the user shall include the following or similar

statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the

FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the

instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not

occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be

determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the

following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Waste Electrical and Electronic Equipment recycling

This symbol on the product or its packaging indicates that this product must not be disposed of as household or commercial waste. Some countries have set up collection and recycling systems for waste electrical and electronic products. By ensuring that this product and its packaging is disposed of correctly, you will help prevent potentially negative consequences for the environment and human health, and help conserve natural resources. Please dispose of your waste product according to your national and local regulations. Contact your service provider or Kirisun for information about disposing of this product in your region of the world.

Disposing of batteries

Your radio is supplied with a rechargeable lithium-ion battery. This symbol on the battery and its packaging indicates that it must not be disposed of with household or commercial waste. Please dispose of your waste batteries according to your national and local regulations. Contact your service provider or Kirisun about recycling batteries in your region of the world.

US Markets

FCC radiation exposure statement

This radio is intended for use in occupational/controlled applications where users have been made aware of the potential risks for exposure and can exercise control over their exposure. This product is not authorised for general population, consumer or similar use.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

DP580-01 Quick Reference

Antenna
Side Key 1
PTT Key
Side Key 2
Channel Selector Knob
Power/Volume Knob
Emergency Button
LED Indicator
Speaker
LCD display
Key pad
Comm Port
Microphone
Belt Clip
Battery Latch
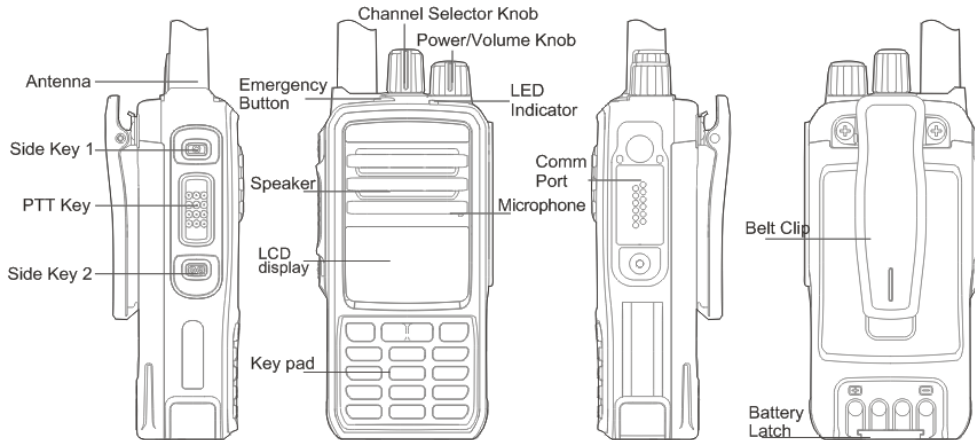
Brief Introduction

1．Attaching the antenna: put the antenna into the antenna interface, and rotate the antenna clockwise to

fix it.

2．Powering on: rotate the power/volume knob to power on the radio.

3．Channel Selection: rotate the channel selection knob to select channel.

4．Powering off: rotate the power/volume knob clockwise to power off the radio
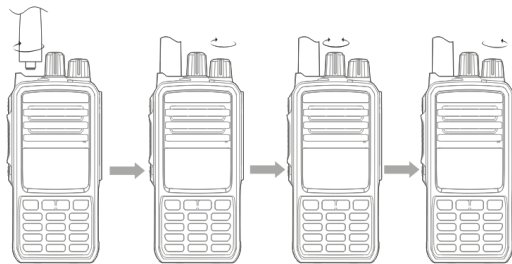
Contents

1   Unpacking and Checking

Please carefully open the box, and check if the accessories listed below are contained in the package. For

any missing or damaged item, please contact your local dealer for solution.

1.1 Supplied Accessories

Material	Quantity
Radio	1
Charger	1
Power Adaptor	1
Battery	1
Belt Clip	1
Antenna	1
Strap	1
User Manual	1
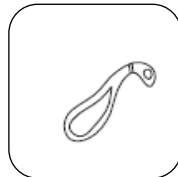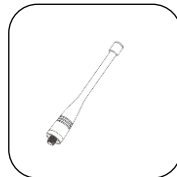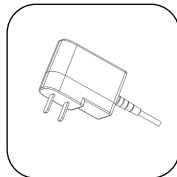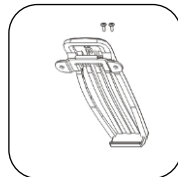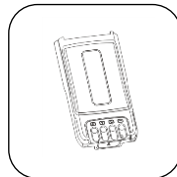
2 Battery Information

2.1 Notice

The battery is not charged before delivery, so please charge the battery for your first use. If the battery is not used for a long time or the battery is used up, please charge it before use. Charge/discharge for twice or three times alternately to achieve its optimal performance. For low battery, please charge it or replace it.

Note:

◆Do not cause any short circuit on the battery or throw the battery into fire.

◆When attaching the battery to the radio for charging, please make sure the radio is powered off to guarantee it can be fully charged.

◆Do not leave the radio or battery on the charger after it is fully charged. Unnecessary constant charging will shorten the battery life.

◆Do not put the fully-charged battery back to the charger for re-charging, or it may shorten the battery life.

◆Please try to keep the battery in an indoor environment at around 25℃.

The battery may get easily spoiled after being kept in the environment below -10℃ for a long time.

◆In temperature higher than 35℃ or below -10℃, the dischargeable power of the battery may decrease due to the physical property of lithium battery.

2.2 Battery Charging
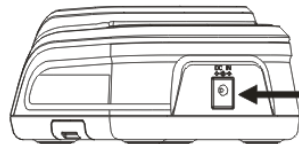
(1) Plug the power adaptor in the proper socket of AC power.

(2) Plug the cable of the power adaptor at the back of the socket, and the green indicator glows.

(3) Plug the battery or radio in the charger.

(4) Make sure that the battery is in proper contact with the charger terminal, and the red indicator glows.

(5) After the battery is charged for 6 hours, the red light goes out, indicating that the battery is fully charged.

(6) When the green indicator glows, keep the battery on the charger for 1-2 hours before taking it out so as to achieve the optimal performance.

(7) Take out the power adaptor from the socket of AC power output.
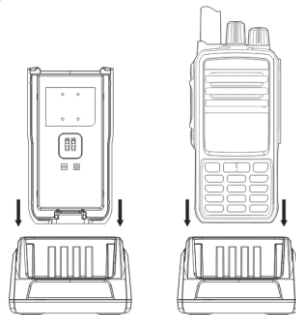
Note:

◆ The battery is not charged before delivery from the factory, so please charge the battery before your first use.

◆ Kirisun KB-75A lithium-ion can be used for this radio.

◆ If the battery which is stored for over 2 months or a new battery is charged for the first time, it should be charged repeatedly to gain full battery capacity. The battery should be at least charged once every

three months.

◆ When the battery is fully charged or the battery power is above the level of low power alert, do not charge the battery, or it may affect the battery life and performance. Please take out the battery from the charger after it is fully charged.

◆ When the radio enters the state of low voltage alarm, please charge the battery before using it and do not force to power on the radio in case that the battery life and performance is impaired.

◆ There is protection circuit inside KB-75lithium battery. The power supply will be cut off in state of low power, and when you charge it in the charger, the indicator will glow after 1-5 minutes.

the fixed points on the top of battery

the fixed slot in the Al. shell

3   Attaching the Accessories

3.1 Attaching/Detaching the Battery

◆Attaching the Battery

the press point of the battery latch
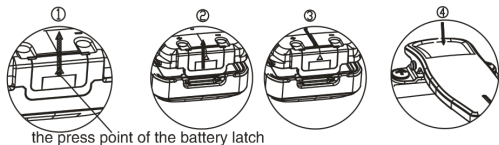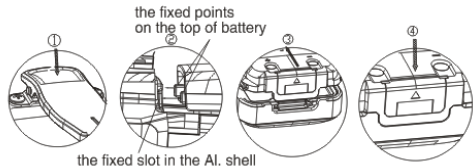
(1) Slightly press the top of the belt clip as shown in ①;

(2) Align the battery with the battery installation base at the back and insert the battery as shown in ②.

(3) Slide the battery along the direction as shown in ③ until the battery is fit into the right position.

(4) Slightly press the battery top as shown in ④ until the battery is locked by the latch.

◆Detaching the battery

(1) For detaching the battery, please first turn off the radio.

(2) Slide the battery latch along the direction as shown in ① to bounce the battery as shown in ②.

(3) Slide to take out the battery along the direction as shown in ③. If there is belt clip, slightly press the belt clip top as shown in ④ and slide the battery along the direction as shown in ③ to take out the battery.

Note:

◆ Do not throw the battery terminals with short circuit or battery into fire.

◆ Do not remove the battery case without permission.
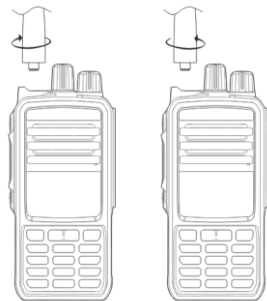
3.2 Attaching/Detaching the Antenna

For attaching the antenna, put the antenna's end with screw thread into the antenna port.

Turn the antenna clockwise until it is fixed.

For detaching the antenna, turn it counter-clockwise.

M2.5* 8 screw to fasten the belt clip

3.3 Attaching/Detaching the Belt Clip

Align the two screws on the belt clip with the screw holes at the back of the radio.
Use two M2.5x8 machine screws.

When detaching, loosen the two screws on the belt clip and remove the belt clip.
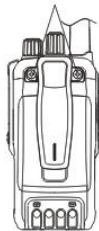
3.4 Attaching the Microphone

Open the earphone cover plate on the right and connect the earphone cable to the port.
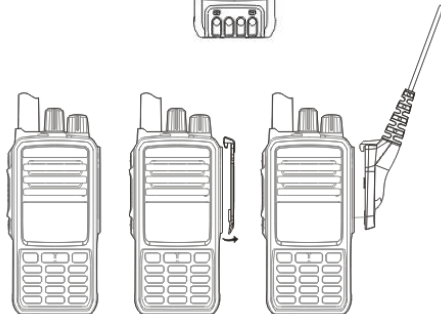
4. Overview
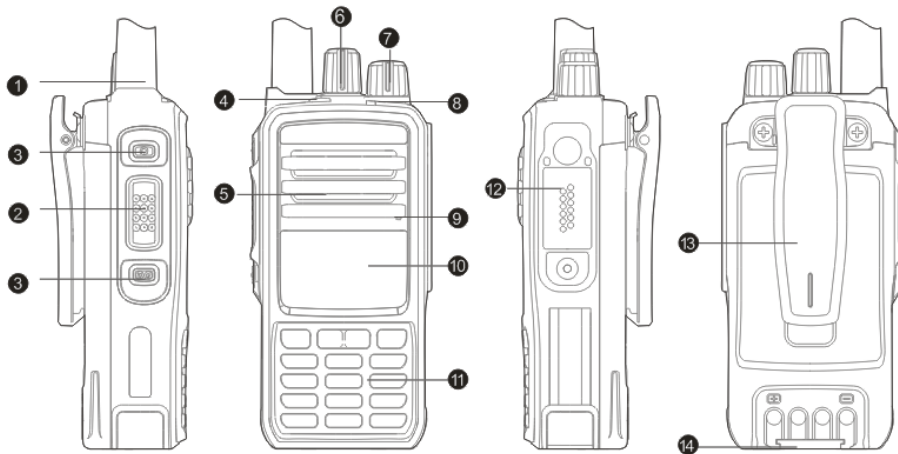
No.	Part Name	No.	Part Name
1	Antenna	8	LED Indicator Red light on: The radio is transmitting signals. Green light on: The radio is receiving signals. Flashing red light: The battery is low.
2	PTT Key Press it to make a call and talk.	9	Microphone Input voice.
3	Upper/Lower Side Key (Programmable Key) Various functions can be realized for the key through programming by a dealer. For details, see 5 Programmable Keys.	10	LCD Screen
4	Programmable Key (Usually Alarm Key)	11	Digital key

5	Speaker Output voice.	12	External Interface Connect to an external speaker or microphone.
6	Channel Selector Knob Rotate it to select one from the channels 1 to 16.	13	Belt Clip
7	Power/Volume Knob Turn it clockwise until a click is heard to power on the radio. Turn it counterclockwise until a click is heard to power off the radio. When the radio is on, turn it to regulate the volume.	14	Battery Latch

5. Programmable Keys

5.1 Programmable Keys

To suit the operation habits of customer, programmable keys (side keys) are available and can be set by dealer as shortcut key.

Note:

Short Press: press and release quickly.

Long Press: press and hold for a while (press duration can be set by programming software)

No	Programmable Feature	Application
1	No Function	Press the key, and the radio will not respond.
2	High/Low Power	Switch to high/low power.
3	Listen	If the CTCSS is enabled for the current analogue channel, press the key to switch to carrier squelch mode (i.e. cancel the CTCSS). Voice is output when the carrier is matched. Press the key again to go back to the previous state.
4	Emergency Alarm	Send an emergency alarm. It is used to seek help under emergency.
5	Exit Emergency Alarm	Quit the state of emergency alarm.
6	Squelch On/Off	Enable/disable squelch. It can be used to receive week signals in

No	Programmable Feature	Application
		an analogue channel.
7	Broadcast Call	Set the function of broadcast call.
8	Scan	Enable/disable scanning. It is used to listen to the communication activities on other channels.
9	Prompt Tone On/Off	Enable/disable all prompt tones.
11	Zone Selection	Switch among different zones. Zones are programmed using CPS programming software.
12	Repeater/Talk Around	Enable/disable repeater function for the channel.
13	Delete Noise Channel	If you don't need a channel found through scanning, press the key to delete the channel from the scan list.

5.2 LED Indication

State	Operation
Red Light on	Transmitting signals
Green Light on	Receiving signals
Red Light Flashing	Low battery. Please charge it
Green Light Flashing	Scanning channels
Orange Light Flashing	In call hold state under digital mode. Exit when hold time is up
Orange Light on	The channel unusable. Switch to another channel to quit
Red Light Flashing Fast	CPS is reading configurable parameters of the radio
Green Light Flashing Fast	CPS is programming configurable parameters of the radio

5.3 LCD Indication

Signal Strength	⊤	No signals are received or sent
	⊤ⅢⅠ	Signals are received or sent
Message	✉	Unread message (in status bar or inbox)
	✉	Read message (in outbox)
	✉	Sent message (in outbox)
	✉	Message sent unsuccessfully (in outbox)
Scan	↻	If it flashes, scanning is under progress
	↻	If it does not flash, scanning is ceased
TX Power	L	Current channel at low power
	H	Current channel at high power
Keypad Lock	🔒	Keypad locked

Prompt Tone	🔊	Prompt tones enabled
	🔇	Prompt tones disabled
Emergency Alarm	⚠	Radio in emergency alarm state (secret alarm excluded), or emergency alarm received
Battery Capacity	▯▯▯▯▯	Length of icon indicates quantity of capacity
Single Call	👤	Type of current call
Group Call	👥	Type of current call
All Call	👥👥	All call or broadcast call
Outgoing Call	📞	Radio initiating a call
Incoming Call	📞	Radio receiving a call
Call Hold	📞	Radio in call hold state

6. Basic Operation

6.1 Powering on/off the Radio

When the radio is off, rotate the Power/Volume knob clockwise until a click is heard to power on the radio. The welcome page will be displayed, backlight will be on, and a "beep" sound will be heard.
When the radio is on, rotate the Power/Volume knob counterclockwise until a click is heard to turn off the radio.

6.2 Selecting a Channel

When the radio is on, rotate the Channel Selector knob to select a channel. Meanwhile, the zone and mode of the current channel are displayed.

6.3 Adjusting the Volume

When the radio is on, rotate the Power/Volume knob clockwise to increase the volume or counterclockwise to decrease it. The page of volume level is displayed and then quit after a period.

6.4 Initiating a Call

If the current channel is digital, you may perform any of the followings.

Call the default contact: Press the PTT key. The indicator will be on with red light, indicating the radio is transmitting signals. The call page containing the contact name and the call type will be displayed. The default contact of the current channel can be set by the dealer through programming, or via the menu in the contact list.

Select and call a contact: Go to the "Contact" menu, and select a contact from the Contact List, and then press the PTT key to call.

Dial to call: Go to the Contact menu and then the Manual Dial page, enter a contact ID, and then press the PTT key to call.

If the current channel is analogue, press the PTT key to call. The indicator will be on with red light, indicating the radio is transmitting signals.

6.5 Receiving a Call

When the radio receives RF signals on the current channel and the squelch level is reached, the green

LED glows to indicate that carrier is received.

When the current channel is digital channel and when it received private call, group call or all call, the radio will output the voice from the channel. A page containing the contact's ID or alias, call type (private call, group call or all call), and the icon of incoming call will be displayed. If the contact is in the contact list, contact alias will be displayed; otherwise contact ID will be displayed.

When the channel is analogue channel and when it received analogue signals with CTCSS matching the one on this channel (or there is no CTCSS set on the channel), the radio will output voice form the channel.

6.6 Replying to a Call

When the current channel is digital channel and after a call is received, press the PTT button within the calling duration to reply. Within the duration, yellow light flashes, and the page of incoming calling is displayed. If the calling duration is up, you need to initiate a call to reply. The calling duration can be set by the dealer.

When the current channel is analogue channel and after a call is received, press the PTT button and speak to the microphone to reply.

6.7 Switching to a Zone

A zone is a collection of channels. You can switch among different channel groups by switching to different zones. The radio supports a maximum of 16 zones, each supporting a maximum of 16 channels.

You can switch to a zone in either of the methods:

1) Enable zone selection on the Program key through Programming, and then switch to a zone by pressing the Program key.

2) In the home page, press 📞 to enter the menu, select Zone, and then select a zone.

6.8 Switching to Digital/Analogue Mode

You can configure the mode of each channel as analogue or digital. Rotate the Channel Selector knob to switch between analogue and digital. In analogue mode, some functions are disabled, for example, short message, and corresponding menu items are hidden.

7. Short Message

The radio can receives and sends messages, each in the maximum length of 300 characters.

7.1 Editing and Sending Short Message

1) In the home page, press 🔽 to enter the menu.

2) Select "Short Message".

3) Select "New Message".

4) Select "Edit".

5) In the editing interface, you can:

a) Start editing from the position of the cursor.

b) Enter text using the keypad.

c) Press ▲▼ to move the cursor up/down.

d) Press # to switch to another input method. Press * to switch to lower/upper case.

e) Under non-digital input mode, press "1" to enter punctuations.

f) Press 🔽 to delete the first character before the cursor.

6) After editing, press 🔽.

7) Select "Send". You will enter the Contact interface.

8) Select a target contact or dial a contact ID, and then press 🔽 to send the message.

9) If the message is sent successfully, "Message sent" will be displayed on the screen with a voice prompt; if it is sent unsuccessfully, "Message sending failed" will be displayed with a voice prompt.

10) Return to the Short Message interface.

7.2 Sending Quick Message

The radio supports a maximum of 10 quick messages (defined by the dealer using programming software) You can edit a pre-defined quick message before sending it.

1) In the home page, press 📞 to enter the menu.

2) Select "Short Message".

3) Select "Template".

4) Select a target quick message, and press 📞.

5) Select "Send" to enter the Contact interface.

6) Select a contact, and press 📞.

7) If the message is sent successfully, "Message sent" will be displayed on the screen with a voice prompt; if it is sent unsuccessfully, "Message sending failed" will be displayed with a voice prompt.

8) Return to the main menu.

7.3 Receiving Short Message

When the radio receives a message, the LCD will remind you of the new message and display the icon of unread message on the status bar.

You can enter the inbox and read the message.

8. Emergency Alarm

Under emergency, you can send a confirmed emergency alarm and an emergency voice message to a specified radio group. You can send an emergency alarm anytime even signals are being received through the current channel.

The radio supports three modes of emergency alarm.

1) Emergency alarm

2) Emergency call

3) Emergency alarm with background tone

Each mode of emergency alarm has the following types.

1) Siren Only —— After the radio enters the emergency state, the siren only sounds locally and the control center will not receive any alarm signal.

2) Normal —— The radio sends emergency alarm and audio-video alert.

3) Secret —— The radio sends emergency alarm but no audio-video alert. When the radio receives speech signals, the speaker will not be turned on until the PTT button is pressed.

4) Secret with voice —— The radio sends emergency alarm without audio-video alert. When the radio receives speech signals, there will be no audio-video alert until the PTT button is pressed.

8.1 Sending Emergency Alarm

1) Press the Program key programmed as the Emergency Alarm key. The icon 🛡 will be displayed in the status bar; the alias or ID of emergency group call and the outgoing call icon 📞 are displayed.

2) When the radio receives response, the LCD will show "Emergency Alarm Succeeded".

If the radio fails to receive response and when the retry count is used up, the LCD will show "Emergency Alarm Failed".

3) The radio exits the emergency mode and returns to the home screen.

Note:

- If you radio is set as "Secret" or "Secret with Voice", there will be no audio-video alert.
- After the emergency alarm with voice responded, the two parties can communicate though the emergency channel.
- The emergency with voice will then open the radio MIC, which allows user to talk without having to press PTT button. The automatic Mic activation is called Hot Mic (set by dealer with programming software).

8.2 Receiving Emergency Alarm

If the radio enabled "Emergency Indication" feature, it can receive emergency alarm. Otherwise, the emergency alarm will be ignored (set by dealer through programming software）.

To receive emergency alarm, the radio must be set as a group member(set by dealer through programming software）.

1) When the radio receives emergency alarm, the LCD status bar will show the emergency icon ▲.

2) The LCD displays the alias or ID of the emergency radio, the icon of incoming call 📞. The radio periodically sounds the alarm alert and the red LED flashes quickly. Press any key to cancel the emergency alarm.

8.3 Exiting Emergency Alarm

The radio will exit the alarm mode under the circumstances listed below.

● Receives emergency alarm response on Emergency alarm mode.
● The emergency alarm retry count is used up and no response is received.
● Press and hold the Upper/Lower Side key programmed as "Exit Emergency Alarm".

9. Call Records

Through the call log, you can check and manage recent outgoing call, incoming calls and missed calls on the radio. The call log records private call only.

9.1 Checking Recent Calls

1) In the home page, press .
2) Select "Call Records".

3) Select a call list (missed calls, outgoing calls or incoming calls).

4) Select a target call record.

5) Select "Details" to check the record details.

6) Press the PTT key to call the contact corresponding to the record.

9.2 Saving ID to Contact List

1) Select a target record from the call list.

2) Select "Save" to enter the interface of adding a contact.

3) Enter the contact's name.

4) Press the Ok key to save the contact.

9.3 Deleting Calls from Call List

1) Deleting all Records from Call List

a) In the home page, press 📞.

b) Select "Call Records".

c) Select a call list (missed calls, outgoing calls or incoming calls).

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d) Select "Delete All".

e) Press the OK key to delete all the records in the list.

2) Deleting one Record from Call List

a) Select a target record in the call list.

b) Select "Delete".

c) Press the OK key to delete the record.

10.　Functions and Operation

10.1　TOT (time-out-timer)

TOT prevents the user from occupying the channel for too long. If the continuous transmission exceeds the duration set by dealer, the radio will stop transmitting and sound alarm. For stopping alarm, release PTT button. For transmission again, please press PTT button after a certain time interval (interval set by dealer).

If the dealer set pre-alarm feature, pre-alarm will sound before TOT time is up.

10.2   Enabling Color Code on Digital Mode

Only when both the color code and ID matches, the speaker can be turned on to receive.
Range: 0~15 (16 groups of color codes)

10.3   Lone Worker

This function is applicable to circumstances with high risk, in which frequent communication is required to ensure safety. After enabling this function, the user is considered to be in danger if he or she does not act within a preset duration (programmed by the dealer), and an emergency alarm will be submitted to the alarm system associated to the current channel (set by the dealer).

10.4   Language Selection

You can switch the radio languages.
1) In the home page, press ⬜ to enter the menu.

2) Select "Setting".

3) Select "Language Selection", and select a language.

10.5   Setting Alert Tone

You can enable/disable the alert tone and adjusts the volume.

1) In the home page, press ⬜ to enter the menu.

2) Select "Setting".

3) Select "Alert Tone Setting".

4) Select "Alert Tone Button", and enable/disable the following types of alert tones.

a) "All Alert Tone Off" – Disables all the alert tones.

b) "All Alert Tone On" – Enables all the alert tones.

10.6   Setting Power Level

You can set high/low power for each channel.

1) In the home page, press ⬜ to enter the menu.

2) Select "Setting".

3) Select "Power Setting".

4) Select "High" or "Low" power and set the power level.

10.7   Setting Squelch Level

You can adjust the squelch level based on different situation to remove unnecessary calls in weak signals.

1) In the home page, press 🔚 to enter the menu.

2) Select "Setting".

3) Select "Radio Setting".

4) Select "Squelch Level".

5) Select a level, and then press 🔚.

10.8   Setting Keyboard Lock

You can lock the radio keypad in case of incorrect operation.

1) Automatically Locking the Keypad

a) In the keypad lock interface, select and enter the interface of "Auto Lock".

b) Select the delay time of auto keypad lock.

c) Press the OK key and the LCD will show "Operation Succeeded". The auto lock time is saved.

2) Locking the Keypad Quickly

When the radio is on, press and hold * to lock the keypad.

3) Unlocking the Keypad

When the radio is on, press and hold * to unlock the keypad.

10.9   Viewing Radio Information

You can check information such as the radio ID, serial number, firmware version, hardware version and CPS version.

1) In the home page, press to enter the menu.

2) Select "Setting".

3) Select "Radio Information" and view details.

11. Advanced Functions

11.1 Checking a Radio

Radio Check feature is used to check whether a target radio is activated in the system. The target user will automatically send a response to the caller radio without any audible or visual indication.

1) Initiating Radio Check

a) In the home page, press [icon] to enter the menu.

b) Select "Contact".

c) Select "Contact List", and then select a target private call contact.

d) Select "Radio Check".

e) The screen will show the alias or ID of the target contact, and indicates that the radio is sending radio check; the red indicator glows.

f) Wait for response from the target radio.

g) If the target radio is activated in the system and it responds successfully, the message "radio available" will be displayed on the sender radio, otherwise "request timed out" will be displayed.

Note:

During radio check, if the retry count is used up and no response is received, the radio will exit the radio check, and "request timed out" will be displayed.

11.2 Call Alert

Call alert feature allows authorized caller radio to request a target radio to call back.

1) Receiving and Responding to Call Alert

a) When the radio received call alert, it will automatically reply if call alert decode is enabled.

b) The LCD shows "Call Alert…" and the alias or ID of caller radio.

c) The radio periodically sounds alert tone and orange LED is flashing.

d) Press the PTT key to respond to the caller radio, or press any other key to ignore the call alert.

2) Initiating Call Alert

a) In the home page, press 📞 to enter the menu.

b) Select "Contact".

c) Select "Contact List", and then select a target private call contact.

d) Select "Call Alert".

e) The screen will show the alias or ID of the target contact, and indicates that the radio is sending call alert.

The red indicator glows.

f) Wait for response from the target radio.

g) If the target radio succeeded to respond, the message "call alert successful" will be displayed on the sender radio, otherwise "request timed out" will be displayed.

Note:

During call alert, if the retry count is used up and no response is received, the radio will automatically stop sending call alert and the message "request timed out" will be displayed.

11.3 Radio Stun/Un-Stun

Stun/un-stun feature allows the radio to stun/un-stun a target radio through air signaling. The stunned radio can neither transmit nor receive traffic, and it can only be activated by an authorized radio through un-stun signaling. This feature is used to prevent use of the radio without permission or when the radio is lost.

1) Receiving Stun/Un-Stun Signaling

After the target radio receives the stun/un-stun signaling and succeeded to be stunned / un-stunned, it will automatically send operation success indication to the caller radio.

The radio which is stunned can only display channel alias and group alias when it returns to the home

screen without the ability to receive all the other information except the un-stun signaling. All the operation on the radio is valid except powering on/off.

The activated radio will go back to normal from being stunned.

2) Sending Stun/Un-Stun Signaling

a) In the home page, press 📞 to enter the menu.

b) Select "Contact".

c) Select "Contact List" and a target private call contact.

d) Select "Stun/Un-Stun".

e) The screen shows the alias or ID of the target radio and the radio indicates that it is sending stun/un-stun signaling. The red indicator glows.

f) Wait for response from the target radio.

g) If the radio receives a response from the target radio, the message "Stun succeeded"/"Un-stun succeeded" will be displayed; otherwise "Request timed out" will be displayed.

Note:

If the retry count is used up and no response is received, the radio will automatically stop sending signaling with a prompt of "Request timed out".

11.4 Radio Kill

This function allows the user to kill the target radio through air signaling. After the target radio is killed, the key configuration data will be cleared and the radio is powered off automatically. You cannot operate the radio after powering it on.

The killed radio can only be revived by the authorized dealer or supplier.

This feature is used to prevent the lost radio from being used and the key configuration data from being stolen.

Note:

- Once the radio is killed, the configuration data will be lost and the radio cannot go back to normal after reboot, so please operate with due care!
- The killed radio can only be revived by authorized dealer or supplier.

1) Receiving Kill Signaling

After a target radio receives the kill signaling and is killed successfully, it responds with a message of successful operation to the caller radio; otherwise response fails.

After a radio is killed, its configuration data is cleared and it is powered off automatically.

11.5   Remote Listening

This function allows the user to turn on the microphone of a target radio through air signaling without any audio or video indication on the target radio. This function can be used to listen to the surroundings of a target radio.

1) Initiating Remote Listening

a) In the home page, press 🔲 to enter the menu.

b) Select "Contact".

c) Select "Contact List" and a target private call contact.

d) Select "Remote Listening".

e) The screen displays the alias or ID of the target radio and indicates that the radio is sending remote listening signaling. The red indicator glows.

f) Wait for response from the target radio.

g) If the response from the target radio is received, the message "Remote Listening Succeeded" will be displayed; otherwise "Remote Listening Failed" will be displayed.

Note:

  In the process, if the retry count is used up and no response is received, the radio automatically stop

sending signals, and the message "Request timed out" will be displayed.

11.6   Scanning

In order to receive voice and data from multiple channels, the radio can be programmed to scan these channels. The radio supports up to a maximum of 32 scan lists and each scan list supports a maximum of 16 channels. Mixed scan of analogue and digital channels are available. You can relate different channel to different scan list.

By editing the scan list, you can add or delete the channels on the scan list and set priority channel.

1) Checking Scan List

a) In the home page, press to enter the menu.

b) Select "Scan".

c) Select "Scan List", and view the members in the list ("P1" for prior channel 1, "P2" for prior channel 2, and the others for conventional channels).

Note:

In the same scan list, there can be at most one prior channel 1 and one prior channel 2. If there is no

priority channel, no icon will be displayed.

2) Adding Scan Channel

a) In the home page, press ⌨ to enter the menu.

b) Select "Scan".

c) Select "Scan List", and then select "Add".

d) Select a target channel from the list of available channels, and add it to the scan list.

3) Deleting Scan Channel

a) In the home page, press ⌨ to enter the menu.

b) Select "Scan".

c) Select "Scan List", and then select a target channel.

d) Select "Delete" to delete the channel.

4) Editing Prior Channel

a) In the home page, press ⌨ to enter the menu.

b) Select "Scan".

c) Select "Scan List", and then select a target channel.

d) Select "Set as prior channel 1" to set the channel as prior channel 1.

Repeat these steps while adding a prior channel 2.

5) Enabling/Disabling Scan

a) In the home page, press 📞 to enter the menu.

b) Select "Scan".

c) Enable or disable scan.

Note:

During the scan, the radio receives data (including short messages, GPS data, telemetry data or PC data) and digital signaling only through the selected channel (starting channel of scan).

6) Responding during Scan

During scan, if detects a channel with traffic, the radio will stay on this channel for a set period, which is called dwelling time (programmed by dealer through programming software).

a) Keep the microphone 3~10 cm from your mouth.

b) During the dwelling time, press the PTT key to talk, and the red indicator glows.

c) Wait until the prompt tone for voice communication ends, and then speak to the microphone.

d) Release the PTT key to receive voice.

e) If you do not respond during the dwelling time, the radio will go on to scan other channels.

7) Deleting Noise Channel

If bad calls or noise are generated frequently in a channel, you can delete the channel temporarily by pressing and holding the programmed Delete Noise Channel key.

Note:

A channel cannot be deleted if it is the only one prior channel or selected channel or the only one in the scan list.

11.7   GPS*

If positioning system is enabled, the radio will display and offer location information to the software server

(set by dealer through programming software).

Note: A function indicated with "*" is optional. If you need to enable it, please contact Kirisun or the dealer.

1) Checking Information of Current Position

a) In the home page, press to enter the menu.

b) Select "Application".

c) Select "Positioning".

d) Select "GPS Information" menu, and view the date, time, latitude, longitude and satellite numbers.

11.8   Man Down*

This function allows a user to seek help from group members in dangerous situations caused by fall. After enabling this function, the user is considered to be in danger if the radio has been laid down for a preset duration (programmed by the dealer), and an emergency alarm will be submitted to the alarm system associated to the current channel (set by the dealer) to seek help.

1) Enable/Disable Man Down

a) In the home page, press 📞 to enter the menu.

b) Select "Setting".

c) Enable/disable the function.

Note:

A function indicated with "*" is optional. If you need to enable it, please contact Kirisun or the dealer.

Enabling Color Code on Digital Mode

Only when both the color code and ID matches, the speaker can be turned on to receive.

Range: 0~15 (16 groups of color codes)

12 Troubleshooting

No.	Problem	Cause and Solution

1	Failed to power on	A. The battery is used up Solution: Charge the battery or change to a new battery. B. Volume switch is faulty Solution: Get it repaired at the specified service station.
2	Small voice during call	A. Speak too far from the microphone Solution: The ideal distance: 3-10cm. B. wrong volume setting Solution: Turn the volume knob clockwise to increase the volume.
3	Failed to transmit or receive	A. Wrong channel parameters Solution: Reset the parameters and try again. B. The group identity for default contact is wrong Solution: Select a right group. C. Beyond the communication scope. Solution: Reduce the communication distance.

4	GPS positioning fails	A. Check if the antenna is dual-mode.
		Solution: If not, replace it with a dual-mode one.
		B. Check if GPS positioning is properly set.
		Solution: If not, reset it.
		C. The radio is placed in a blocked environment.
		Solution: Place the radio in an open area.
5	Abnormal programming	A. Improper connection.
		Solution: Check cable connection.
		B. Check if USB driver is not installed on the PC.
		Solution: If not, install the driver.
		C. Check if the interface board of the earphone is in poor contact.
		Solution: If not, replace the board.

KIRISUN

DECLARATION OF CONFORMITY

$C\mathcal{E}$

We, Kirisun Communications Co.,Ltd.

3-6Flrs,ROBETA Building, No. 1, QiMin Road, Song Ping

Shan Area, Science & Industry Park,Nanshan District Shenzhen 518057 P.R.China

Declare on our sole responsibility that this equipment complies with the Directive (EU) No 2014/53 of the European Parliament and of the Council of 16 April 2014 on harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (RED) and that any applicable Essential Test Suits measurement have been performed.

Description of equipment:	DMR Two Way Radio
	406.1MHz- 430MHz, 440MHz-470MHz
	Use of frequency range 400 MHz–470 MHz depends on national resctrictions of EU member states.
Model No.: DP585	

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

(1) EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

EN 62311:2008   EN 62209-2:2010

(2) ETSI EN 301 489-1 V2.2.0 ETSI EN 301 489-3 V2.1.1

ETSI EN 301 489-5 V2.2.0 ETSI EN 301 489-17V3.2.0

(3) ETSI EN 300 086 V2.1.2   ETSI EN 300 113 V2.2.1

ETSI EN 300 328 V2.1.1   ETSI EN 300 440 V2.1.1

WenLiang, Fu

General Manager

Shenzhen, 16 Oct 2017

Place and date of issue

Signature

Kirisun Communications Co.,Ltd.

http://en.kirisun.com