



## SMART PoC RADIO



# IRC590

## USER GUIDE

Please read this instruction book carefully before using and keep this with care.  
[www.inricosolutions.com](http://www.inricosolutions.com)

Professional In High Quality Two Way Radios

INRICO TECHNOLOGIES CO., LTD.  
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### ***Notes Before Using***

Please read the following content carefully. It is very important for radio users to gain general knowledge and risks.

- Do not use the device or charging the battery in any hazardous areas such as gas, dust, steam, etc.
- Please turn off the device while refueling or parking at the gas station.
- Do not disassemble your radio.
- Avoid prolonged time in the sun or placing it near heating appliance.
- Avoid excessive exposure to the extreme dusty, damp and splashing place, or leave it on unstable surface.
- Reparation by professional technicians, do not disassemble by yourself.

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## Unpacking and Device Checking

Please unpack and take out the device and all accessories carefully, and ensure all lists have been gotten before discarding the cardboard box. If any items are lost or damaged in transit, please contact with our distributors.

### Accessories

Items	Number
PoC Radio	1
Lithium Battery	1
Power Adaptor	1
USB Charging Cable	1
Belt Clip	1
Desktop Charger	1
Antenna	1
Rubber Ring	3
Pry bar	1
User Manual	1

### ***Handling Precautions***

- Do not overcharge the battery

Please stop charging if it can't be fully charged within required time. The battery probably overheats, smokes, bursts or suddenly be on fire due to abnormal charging process. When fully charged or not charged, please disconnect the charger and unplug it from the power outlet.

- Do not discard battery in a microwave or high pressure container.

The battery probably overheats, smokes, bursts or suddenly be on fire.

- Do not expose damaged battery near any fire.

If the battery is broken, leaking or has an abnormal odor, please remove it from flammable areas immediately. The fluid in the battery is flammable, which may cause smoke and fire.

- Do not use abnormal battery

If the battery is with odd smelly, discolored, deformed, etc., please stop charging or disassemble from the device immediately.

- Please use authorized power adaptor

To comply with warranty terms and avoid damages, charge the battery using a specified charger for best performance.

- Please do not charge at high or low temperature

Do not charge the battery when the temperature is higher than 55 °C or lower than 0 °C.

### ***Battery Care***

#### Fully Charge Battery Before Initial Use

- Do preserve battery life by switching off a device and removing the batteries when it's not being used, and is not expected to be used for extended periods of time.
- Do practice proper battery storage by keeping batteries in a cool, dry place at normal room temperature.

#### Properly Store Batteries

- Remove the battery from the device.
- Charge and discharge the battery to 40%-65% if it will not be used for 10 days or more. This can greatly extend the battery life.
- The battery should drop below 65% when it is idle for more than 10 days to prevent it from swelling.
- Store the battery in cool and dry environment that's less than 25°C.

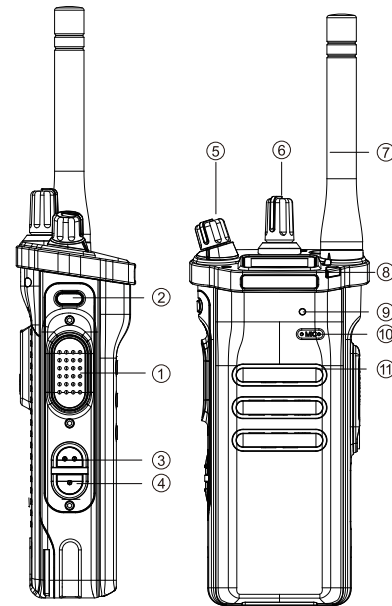
#### Features of Lithium Battery

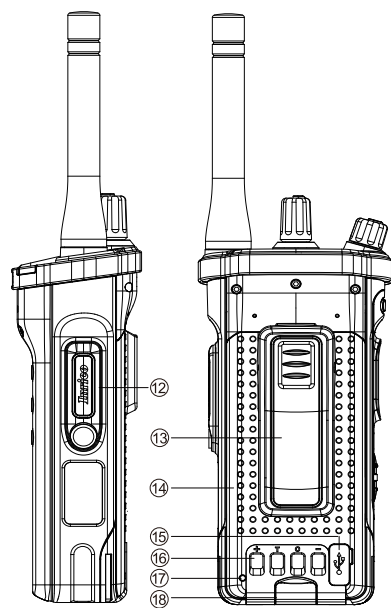
- Battery capacity will reduce after multiple charging cycles.
- The battery capacity drops gradually even without being used.
- Longer charging time is required in shady place.
- Charging and storing lithium battery in warm condition will short its lifespan. Please do not leave them inside the vehicle or near the heater.
- If the battery working time has reduced significantly, please replace the battery immediately in avoidance of fluid leakage.

#### Clean and Maintenance

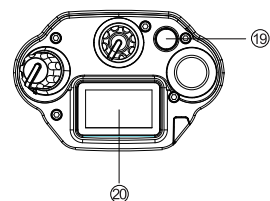
- Before cleaning and maintaining the device: please stop running, turn off the device, and disconnect all connections with other equipment.
- When you do not use the radio, please cover the accessories connector.
- When cleaning the dust, please use soft brush and neutral detergent (no strong corrosive chemicals) to wipe it.
- Please keep the equipment and accessories dry.
- Please do not use the microwave oven or hair dryer or other heating devices to dry them.

#### Product Overview





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1	Screen	11	Speaker
2	Programmable Button F1	12	M6 Port
3	Programmable Button F2	13	Belt Clip
4	Programmable Button F3	14	Battery Cover
5	Power/Volume Knob	15	Charging Port
6	Group Switch Knob	16	Charging Contacts
7	Antenna	17	Charging Indicator
8	Indicator	18	Battery Cover Buckle
9	Camera	19	SOS
10	MIC		

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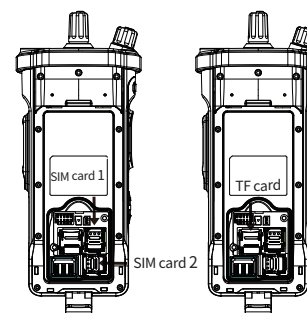
### Function Sheet

Button Name	Function
PTT Button	Push to talk
Programmable Button F1	Short press to switch the screen display orientation; Long press to enter the settings.
Programmable Button F2	Short press to take photos and upload to the server; Long press to private call mode.
Programmable Button F3	Short press to start/stop the video capture and upload to the server; Long press to start/stop live video to dispatch console.
Power/Volume Knob	Rotate the Knob clockwise to increase the volume/power on, while rotate counterclockwise to decrease the volume/power off.
Group Switch Knob	Rotate the Knob clockwise to switch to the next group. Rotate the Knob counterclockwise to switch to the previous group.
SOS	Long press for SOS, Press the PTT Button to cancel SOS

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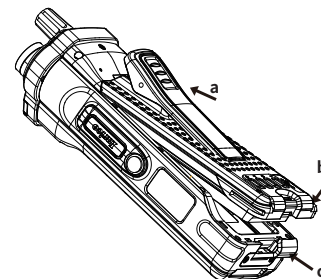
### Accessories Installation

#### 1. Insert SIM card and TF card



#### 2. Attaching the Battery

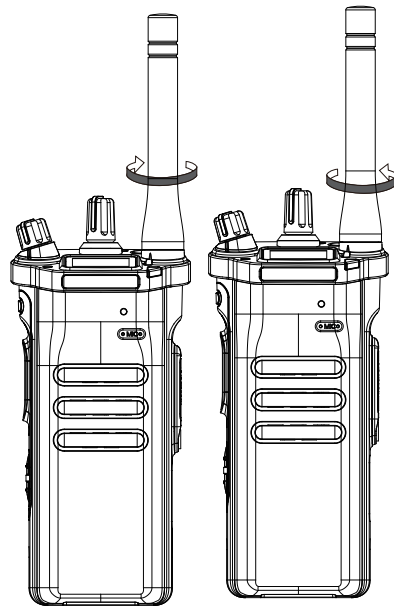
- Align the electrical contact of the battery with the bottom rails.
- Press the battery firmly, make sure the electrical connection touch with the bottom.
- Close the battery cover, flip the latch close and press it until it locks in place.



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### 3. Attaching the Antenna

Set the antenna in the receptacle and turn clockwise until snug to provide best protection against water and dust. Turn the antenna anticlockwise to remove it.  
(Note: Do not hang key-chain or something else on the antenna, or it'll damage the antenna and affect signal strength.)



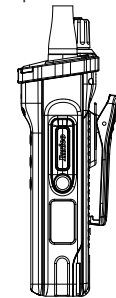
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### 4. Install the Belt Clip

Push the belt clip along the "T" slot to the bottom.

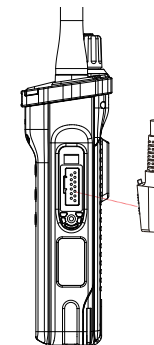
#### Remove the Belt Clip

Lift the buckle and pull the belt clip upward.



### 5. Attaching the Earphone

Align the metal contacts of the earphone with the metal contacts of the device, and tighten the screw to work normally.

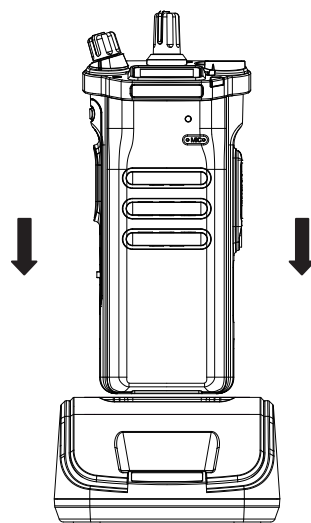


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### 6.Desktop Charging

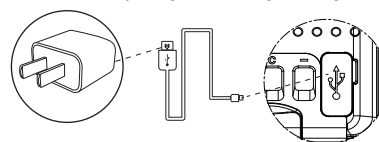
When charging with the desktop charger, the charger must be placed on a flat surface away from flammable materials. After the desktop charger is plugged into the power supply, the green light will be always on. Then put the radio down into the charging port according to the instruction diagram, and the red light is on. The battery does not need to be removed from the intercom when charging. The green light will be always on when the battery is fully charged.



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### 7.Charging Battery

Plug one end of the USB cable into the battery charging port, and the other end into the adapter. After the adapter is powered on, the battery charging indicator lights up red, and when fully charged, the red light turns green.



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### Basic Functions

#### 1.Power On/Off

Rotate the Power/Volume Knob clockwise to power on, while rotate counterclockwise to power off.

#### 2.Adjust Volume

Rotate the Knob clockwise to increase the volume, while rotate counterclockwise to decrease the volume.

#### 3.User Log-in

The current group name will be broadcast once the user's successful log-in.

#### 4.Initiate a Call

- Press PTT button and start to talk.
- The LED light is solid red during transmitting.
- The LED light is solid green during receiving.
- If the current network is not online, the green light flashes quickly.
- The PTT button is invalid If other member is talking in the current group.
- Once the call time exceeds 60 seconds automatically end the call.

#### 5.Initiate NFC Function

NFC function is not available in sleep mode. To use the NFC function, please wake up the system first. (All keys can wake up the system)

### Status Indicators

Working Status	Led Indicator	
	Color	Lasting Time
Transmitting	Red	Solid Red
Receiving	Green	Solid Green
During Boot	Green	Solid Green
Searching network	Green	Flash 1S/time
Low power less than 15%	Red	Flash 3S/time
Normal standby	Green	Flash 5S/time

### Simple Troubleshooting

Problems	Solutions
Unable to Power On	<ul style="list-style-type: none"> <li>The battery may be incorrectly installed. Re-install the battery.</li> <li>The battery may be out of power. Charge or replace the battery.</li> <li>The battery may be in poor contact due to dirt or damage. Clean the electrical contact or replace it.</li> </ul>
Terminal Crash	<ul style="list-style-type: none"> <li>Too many APPS on processing, Force some programs to quit or restart the terminal.</li> </ul>
Buttons Not Working	<ul style="list-style-type: none"> <li>The buttons may not work temporarily, restart the terminal.</li> <li>The buttons are broken, contact the dealer or our company.</li> </ul>
White Screen Error	<ul style="list-style-type: none"> <li>Display screen may not work temporarily, restart the device.</li> <li>The display screen is damaged, contact the dealer or our company.</li> </ul>
Echo or Noise During Connecting	<ul style="list-style-type: none"> <li>The signal may be weak, make sure the terminal is within network coverage.</li> <li>The speaker may be covered, clean the speaker surface.</li> </ul>
Unable to Detect SIM Card	<ul style="list-style-type: none"> <li>The SIM card may be incorrectly installed. Remove and re-insert the SIM card.</li> <li>The SIM card may be not working due to dirt or damage. Clean the electrical contact or replace it.</li> </ul>
Unable to Locate	<ul style="list-style-type: none"> <li>The signal is weak and the radio can't receive the signal. Move to open and flat area and try again.</li> </ul>
Unable to Charge	<ul style="list-style-type: none"> <li>The power adapter plug may be damaged or with poor contact. Pull out and re-plug the adapter.</li> <li>The charging cable connectors may be damaged or with poor contact. Pull out and re-insert the cable.</li> </ul>
Shorter Standby Time	<ul style="list-style-type: none"> <li>The battery life becomes shorter in high temperature environment. Replace a new qualified battery.</li> <li>Power consumption increased in areas with weak signal. Please temporarily turn off the device.</li> </ul>
Unable to Connect the Network	<ul style="list-style-type: none"> <li>SIM card cannot work properly or cannot be used. Make sure the SIM card have balance and not overdue.</li> <li>Mobile network is not enabled, swift on the SIM card network and contact the network operator to activate the cellular network.</li> </ul>

### Specification

Operating System		Android 8.1
Frequency	EU version	GSM: B3/B8
		WCDMA: B1/B8
		TDD: B38/B40
		FDD: B1/B3/B7/B8/B20/B28A/B28B
	US version	GSM: B2/B5
		WCDMA: B2/B4/B5
		TDD: B38/B41
		FDD: B2/B4/B5/B7/B12/B13/B17/B25/B26/B66/B71
Support	WIFI BT GNSS NFC	
CPU	MT6739V/CW	
Memory	1GB+8GB	
Camera	8MP	
Voltage	DC 3.8V from battery or DC 5V from Charger	
Screen Size	1.08 inches	
Battery	6400mAh	
Dimension (H*W*D)	172.8x76.2x51 mm (Without Antenna & Belt clip)	
Weight	≈408g	
Working Temperature	-5°C ~ 55°C	
Storage Temperature	-10°C ~ 70°C	

### **FCC Caution:**

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

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.

### **IMPORTANT NOTE:**

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.

SAR tests are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value.

Before a new model device is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests for each device are performed in positions and locations (worn on the body) as required by the FCC. For face up mode, please keep the device minimum 10mm to the face when normal use. For body mode, please keep the device minimum 10mm to the body when normal use.

Non-compliance with the above restrictions may result in violation of RF exposure guidelines.

RF Exposure Compliance and Control Guidelines and Operating Instructions To control your exposure and ensure compliance with the general/uncontrolled environment exposure limits always adhere following procedures.

#### Guidelines:

- . Do not remove the RF Exposure Label from the device.
- . User awareness instructions should accompany device when transferred to other users.
- . Do not use this device if the operational requirements described herein are not met.

#### Operating Instructions:

Keeping the radio at the proper distance is important because

Antenna should be kept away from eyes.

RF exposures

decrease with distance from the antenna.

. When worn on the body, always place the radio in approved clip, holder, holster, case, case, or body harness for this product. Use of non-approved accessories may result in exposure levels, which exceed the general / uncontrolled environment RF exposure limits.

. Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. batteries, and may exceed the FCC RF exposure guidelines.

.For a list approved accessories please consult your local dealer for information.

#### WiFi

Long press the F1 button to enter the settings

Short press the F1 button, select the WIFI item, and

turn on the WiFi

Scroll up and down through F2/F3 to select the WIFI hotspot to be connected

Short press the F1 key, enter the password of the WIFI hotspot (turn up and down through F2\F3, short press F1 to confirm), select \xFF to proceed, and connect

Note: Long press the F1 button to return to the function

#### Bluetooth

Long press the F1 button to enter the settings

Short press the F1 button to select the Bluetooth item,

short press F1 again to enter the Bluetooth search

Scroll up and down through F2\F3 to select the

Bluetooth device to be connected

Note: Long press the F1 button to return to the function

Max. SAR Level(s) Reported(W/kg)

Body SAR:0.68W/kg, Head SAR:0.68W/kg

Limit (W/kg):1.6W/kg

