Inrico
Innovation Rich Communications

Professional In High Quality Two Way Radios

INRICO TECHNOLOGIES CO., LTD.
www.inricosolutions.com

Hybrid RSM

IRC100
USER GUIDE

Please read this instruction book carefully before using and keep this with care.
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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.

Disclaimer

Inrico reserves the right to modify product design and specifications. Inrico assumes no responsibility in the event of printing errors. All specifications are subject to change without notice.

Contents

Unpacking and Device Checking

Please unpack and take out the device and all accessories carefully, and make sure all items listed below have been received before throwing away the box. If any items are lost or damaged in transit, please contact with our distributors.

Accessories

Items	Number
Multi-Function Device	1
Lithium Battery	1
Power Adaptor	1
USB Charging Cable	1
Screw	1
Belt Clip	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

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℃.

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
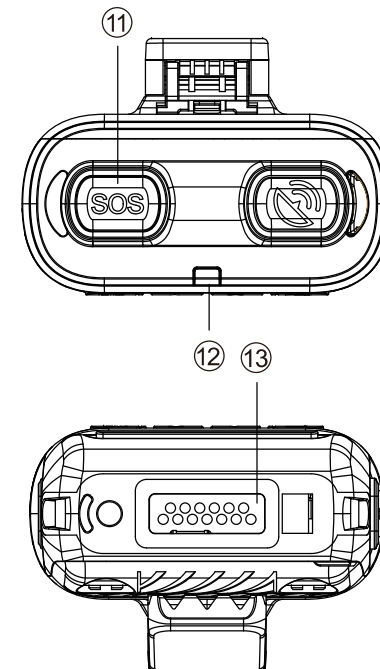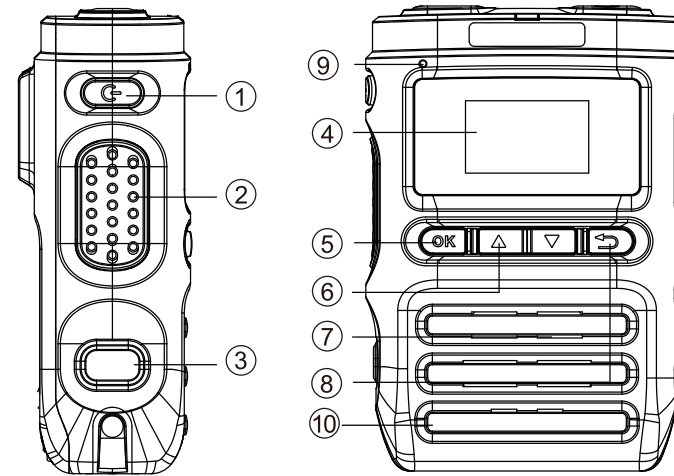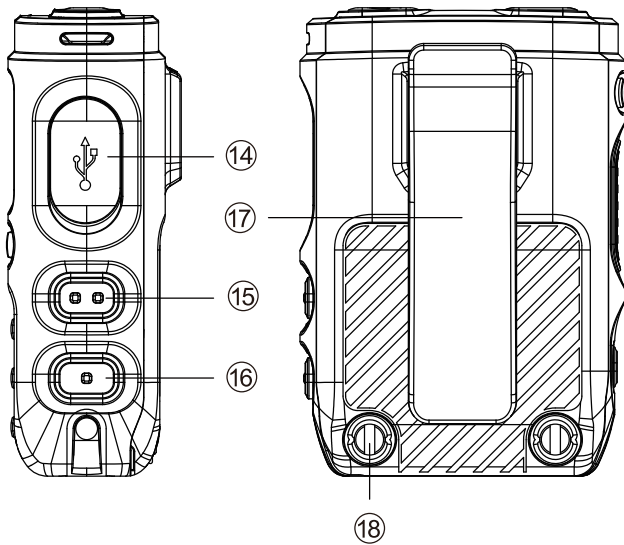
1	Power Button	10	Speaker
2	PTT Button	11	SOS
3	Programmable Key F1	12	Indicator
4	Screen	13	Hole
5	OK	14	M6 Screw Hole
6	Page up button	15	Programmable Key F2
7	Page down button	16	Programmable Key F3
8	Return/Exit button	17	Belt Clip
9	MIC	18	Screw

Basic Functions

Number	Button Name	Function
1	Power button	Short press: Turn the screen on/off Long press: Turn on/off
2	PTT Button	Long press the PTT button to talk. Release the PTT button to listen.
3	Programmable Key F1	Short press to switch between PMR mode and PoC mode.
5	OK	Short press: Turn the screen on/off Long press: Turn on/off
6	Page up button	Private call: short press to switch to the previous member Group call: short press to switch to the previous group
7	Page down button	Private call: short press to switch to the next member Group call: short press to switch to the next group
8	Return/Exit button	Short press : return to/exit the private call, reply to speech within 4 seconds after answering Long press : broadcast the validity of PTT license
11	SOS	Short press for voice playback Long press for SOS
15	Programmable Key F2	Short press： volume up Long press: SOS alarm, press PTT button to cancel the alarm
16	Programmable Key F3	Short press： volume down Long press: swift between PMR\PoC single mode and PMR-PoC dual mode

Accessories Installation

1.Insert SIM Card
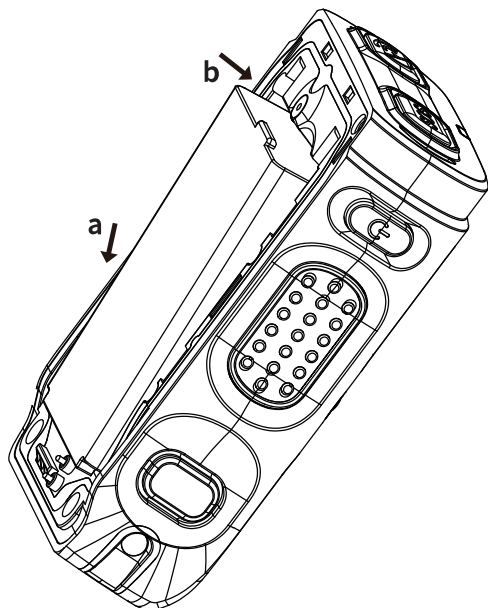
SIM Card
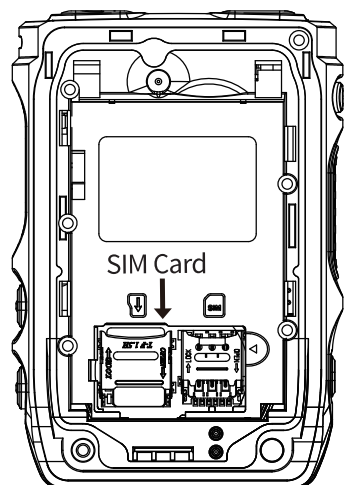
2.Attaching the Battery

(a)Align the electrical contact of the battery with the bottom rails.
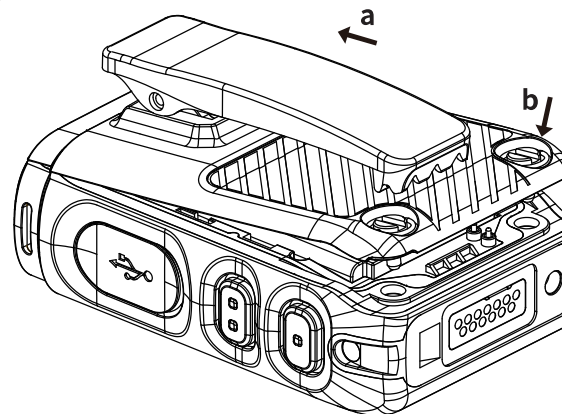
(b)Press the battery firmly, make sure the electrical connection touch with the bottom.

b

a

3.Attaching the Battery Cover

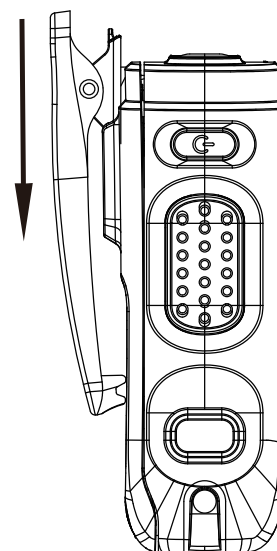(a)Close the battery cover

(b)Fasten the two screws

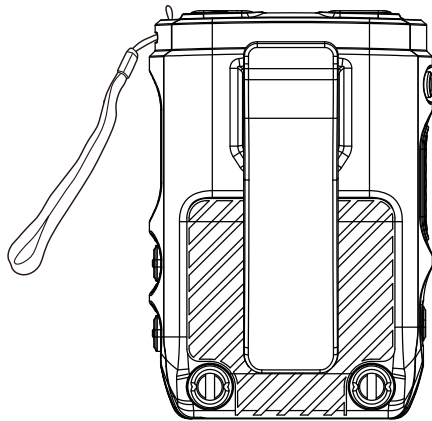a

b

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.Install Hand Strip

Basic Functions

1.Power On
Long press the power button for 3 seconds and the
program will start.

2.Power Off
Long press the power button for 5 seconds to shut down.

3.User Log-in
User information will be broadcast once the user's successful
log-in.

4.Initiate a Call
● Press PTT button and start to talk.
● In the public network state，The LED light is solid red
during transmitting.
● In private network state,The LED light is solid blue during
transmitting.
● The LED light is solid green during receiving.
● The PTT button is invalid If other member is talkingin the
current group.
● Once the call time exceeds 60 seconds automatically end
the call.

5.TETRA Functions List
• Connect the TETRA radio, enter the PMR mode automatically.
The blue light flashes;
• The PMR mode checks that The Tetra radio's network is
normal, and automatically enters the PMR mode.The PTT,
speaker, and MIC are all connected to the TETRA terminal and
used as the bluetooth microphone of the TETRA radio.Receive
group call in PoC mode: play the PMR group call in idle state.
• Press F1 in PMR mode to switch to PoC mode;

6.PoC functions List

(a) Enter the PoC mode when the Tetra radio is not connected. The green light flashes;

(b) Group Call
• Enter the default group after entering the DMR mode, and there is a voice broadcast. Press the PTT key to initiate an intercom after enter the xxx group.
• Press the up and down keys to select the group and voice broadcast the group name xxx, when the group is switched quickly, the voice broadcast of the next group will cover the previous one;

(c)Private Call
• Long press F2 to enter private call, select the personnel online and broadcast the personnel name through the up and down buttons. Press the OK/PTT to initiate private call with selected personnel;
• During the private call,short press the exit button to quit.

(d)SOS
• Long press SOS button to initate the emergency call.
• Press the PTT button to cancel the alarm during SOS, and enter the normal group call.

Status Indicators

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

Simple Troubleshooting

Problems	Solutions
Unable to Power On	● The battery may be incorrectly installed. Re-install the battery. ● The battery may be out of power. Charge or replace the battery. ● The battery may be in poor contact due to dirt or damage. Clean the electrical contact or replace it.
Terminal Crash	● Too many APPS on processing.Force some programs to quit or restart the terminal.
Buttons Not Working	● The buttons may not work temporarily, restart the terminal. ● The buttons are broken, contact the dealer or our company.
White Screen Error	● Display screen may not work temporarily, restart the device. ● The display screen is damaged, contact the dealer or our company.
Echo or Noise During Connecting	● The signal may be weak, make sure the terminal is within network coverage. ●The speaker may be covered, clean the speaker surface.
Unable to Detect SIM Card	● The SIM card may be incorrectly installed. Remove and re-insert the SIM card. ● The SIM card may be not working due to dirt or damage. Clean the electrical contact or replace it.
Unable to Locate	● The signal is weak and the radio can't receive the signal. Move to open and flat area and try again.
Unable to Charge	● The power adapter plug may be damaged or with poor contact.Pull out and re-plug the adapter. ● The charging cable connectors may be damaged or with poor contact. Pull out and re-insert the cable.
Shorter Standby Time	● The battery life becomes shorter in high temperature environment. Replace a new qualified battery. ● Power consumption increased in areas with weak signal. Please temporarily turn off the device.
Unable to Connect the Network	● SIM card cannot work properly or cannot be used. Make sure the SIM card have balance and not overdue. ● Mobile network is not enabled, swift on the SIM card network and contact the network operator to activate the cellular network.

Specification

OS		Android 8.1
Frequency	EU version	GSM: B2/B3/B5/B8
		WCDMA: B1/B2/B5/B8
		TDS: B34/B39
		TDD: B38/B39/B40/B41
		FDD: B1/B3/B5/B7/B8/B20/B28A/B28B
		CDMA2000 1X/EVDO BCO
	US version	GSM: B2/ B5
		WCDMA: B2/B4/B5
		TDD: B38
		FDD: B2/B4/B5/B7/B12/B17/ B66
Network Support		WIFI BT NFC GPS/AGPS/BDS
CPU		MTK6739V，1.5GHz
Memory		8GB+1GB
Working Voltage		3.8V
Screen Size		1.08 inches
Battery		3500mAh
Dimension (H*W*D)		90.8*62*30.5mm(Without Antenna & Belt clip)
Weight		≈ 210g
Working Temperature		-10°C ~ 60°C
Storage Temperature		-20°C ~ 60°C

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 a 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,10mm was used for test, this equipment should be installed and operated with minimum distance 10mm. For body worn operation, this equipment has been tested and meets the FCC RF exposure guidelines when used with an accessory designated for this product or when used with an accessory that Contains no metal and that positions the handset minimum of 10mm from the body.
Non-compliance with the above restrictions may result in violation of RF exposure guidelines.
RF Exposure Compliance and Control Guidelines and Operating Instructions

BE	BG	CZ	DK	DE	EE	IE	EL
ES	FR	HR	IT	CY	LV	LT	LU
HU	MT	NL	AT	PL	PT	PO	SI
SK	FI	SE	NO	IS	LI	CH	TR

In all EU member states,operation of 5150-5350 MHz is restricted to indoor use only.