

ACRO-M

User Manual



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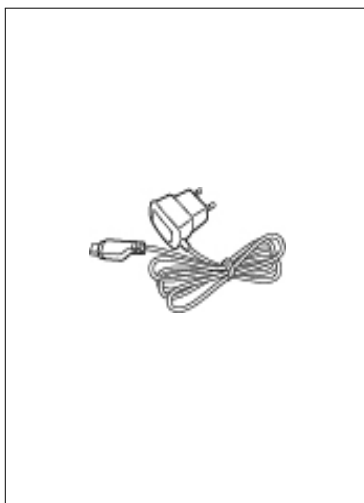
1. Composition

1.1 Components

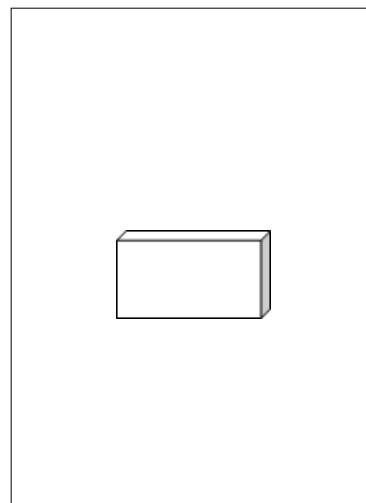
1.1.1. Basic Items



Terminal



Charger



User Manual

1.1.2. Additional Items

- Pouch, Belt Clip, Basic Battery, Additional Battery, Earset, Mike Earset, External PTT key

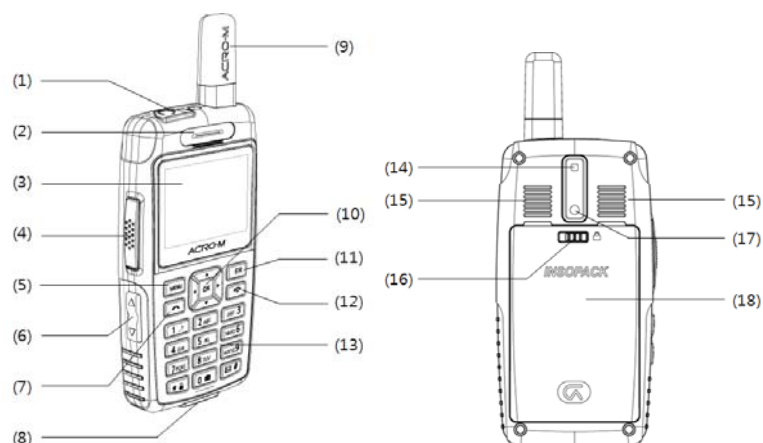
1.2 Terminal specifications

Division	Category	Specification
Standard	Size	135(H)mm x 68(W)mm x 21(D)mm
	Weight	250g
	Components	Organization Appearance: Polycarbonate (PC) LCD Window: Acrylic PCB: 8L-C Shield cans: Sus
Battery	Output Voltage	3.7 V
	Output Current	4000 mAh
	Type	Lithium-ion polymer
RF	Radio Frequency	450.025 ~ 469.925 MHz
	Output Range	1W ~ 2.5W (Set by S/W)
	Receiving Sensitivity	- 110dBm
	Spurious Sensitivity	- 40dBm
Etc.	Operation Hour	10 Hours (When the battery is fully charged)
	Audio Output	Dual (1W each)

1.3 Terminal Usage

- Leisure Activity (Hiking, Survivor, etc.)
- Service Industry
- Industrial Sites (Factory, Tunnel)
- Special Operation (Fire Fighters, Police, Military, etc.)

1.4 Detailed Information



#	Title	Description
(1)	3.5mm earphone jack	Ear Microphone Connector
(2)	Receiver	Not in use. (decoration only)
(3)	Screen	2.3 " terminal control screen
(4)	Push to Talk button (PTT : For the radio call)	PTT button for the radio call
(5)	Menu key	Key to enter the menu
(6)	Volume Control key	Handset speaker volume control (up / down)
(7)	Call key	Button for 1:1 communication
(8)	Micro 5pin connector	Terminal connector for charging and PC connection
(9)	Antenna	Terminal Antenna
(10)	4 directional keys	Menu direction key for operations
(11)	Power on / off key	Power key for the terminal
(12)	Emergency key / Cancel key	Used for emergency situation
(13)	Keypad	Keys to enter the letters and numbers
(14)	Flash	Function to use at night and in the dark
(15)	Dual Speaker	Built-in dual speaker for enhanced audio performance
(16)	Battery lock	Removable battery function
(17)	Camera	1600 X 1200 (UXGA)
(18)	Battery Pack	3.7V, 4000mAh

2. Screen Description

Icon	Title	Description
	ID status	Displays the terminal ID# while transmitting data
	Message	Displays the received message
	Bluetooth	Bluetooth is available and it displays that the device is not connected to other bluetooth device
	Bluetooth connected	Bluetooth is available and it displays that the device is connected to other bluetooth device
	Battery	Displays the battery status (1~3level, Discharge status)
	GPS	Able to determine the location of the device user.
	Volume	Able to control the volume. (1~5 level)
	Mute	Able to mute the volume
	Vibration	Able to use vibration mode.

3. How to Use

3.1 Turning 'On' and 'Off' the radio

- Press  key for 2~3 seconds where it is located on the front of the keypad.

3.2 Group Communication

- Description : Normal radio communication function.

- **Set prior to the telecommunication (ID & Channel setting)**

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) ID and CHANNEL can be set and change by using 4 directional key .
- ※ Terminal with identical ID cannot be transmitted. (In case of channel consultation are needed before synchronizing)
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

- **Communication**

- 1) Press the PTT button on the left side of the device and it will switch to transmission condition.
- 2) Press the PTT button on the left side of the device and it will switch to receiving condition.

3.3 1:1 Communication Mode

- Description : It is use for 1:1 private communication.

- **Mode On**

- 1) Press  key where it is located on the front of the keypad.
- 2) Change the user ID and CH of the device to transmit and press  key to request communication.
- 3) If the 1:1 communication requests is accepted by the opponent then it will be able to perform communication.

- **Mode Off**

- 1) During the 1:1 communication press  key where it is located on the front of the keypad.
- 2) When the 1:1 communication is over, it will switch to the previous group communications mode.

3.4 GPS Mode

- Description : Devices can be identify their location to prepare for the emergency or unexpected situation

■ GPS mode on

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) GPS can be set 'On' by using 4 directional key .
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.
- 5)  icon will be displayed on the screen.

■ GPS mode off

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) GPS can be set 'Off' by using 4 directional key .
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.
- 5)  icon will disappear from the screen.

3.5 Camera Mode

■ Setting the Camera mode and video recording

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the CAMERA and press **OK** key.
- 3) Use **OK** key to take picture.

■ Photo check

- 1) Press **MENU** key while the camera mode is on.
- 2) Use 4 directional key  to change pictures.

3.6 Bluetooth Mode

- Description : Link to headset (wireless mic, speaker) and PC (transfer pictures taken) by using bluetooth.

※ Operates in 10 meter range.

■ Bluetooth mode on

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) Use 4 directional key  to activate the bluetooth mode.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.
- 5)  icon will be displayed on the screen.

■ Bluetooth mode off

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) Use 4 directional key  deactivate the bluetooth.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.
- 5)  icon will disappear from the screen.

■ Connecting to Bluetooth device

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  for SETTING and press **OK** key.
- 3) It will automatically search for neighboring devices, and use 4 directional key  to choose the device.
- 4) Select the device and press **OK** key for some seconds to save the setting and return to the main screen.
- 5)  icon will be displayed on the screen.

■ Disconnecting from Bluetooth device

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the bluetooth device and then press **OK** key.
- 3) Press  key for 2~3 seconds to disconnect the device.
- 4)  icon will switch to  icon on the screen.

■ Transfer OBEX file to the PC

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the bluetooth device and then press **OK** key.
- 3) Press **MENU** key for 2~3 seconds to enter transfer the file selection screen.
- 4) Use 4 directional key  to select the transfer file and press **OK** key.
- 5) Transfer file will transfer from the PC.

3.7 Text messaging

- 1) Press  key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select 'New Message' and press **OK** key.
- 3) Type the text message and press **OK** key.
- 4) Chose the terminal ID to send the message and press **OK** key.

3.8 Checking the message

- 1) Press  key for 2~3 seconds.
- 2) Use 4 directional key   to select 'Message Box' and press **OK** key.
- 3) Use 4 directional key   to check the received message.

3.9 Controlling the Volume

- To control the volume use volume increase / decrease   keys on the left side of the terminal. from 1 to 5 level.

3.10 Activate and inactivate the vibration mode

■ Activate the vibration mode

- 1) Press **MENU** key for 2~3 seconds.
- 2) Use 4 directional key     to select the 'Setting' and press **OK** key.
- 3) On the 'Vibration' category use 4 directional key   and select 'On' and press **OK** key for some seconds to save the setting and return to the main screen.
- 4)  icon will be displayed on the screen.

■ Inactivate the vibration mode

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key     to select the 'Off' and press **OK** key.
- 3) On the 'Vibration' category use 4 directional key   and select 'Off' and press **OK** key for some seconds to save the setting and return to the main screen.

3.11 Screen lock mode On / Off

■ Lock mode on

Press  key for 2~3 seconds where it is located on the front of the keypad.

■ Lock mode off

Press  key for some seconds while 'lock mode is on' to save the setting and return to the stand by screen.

3.12 Enable / disable the relay function

■ Enable rely function

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the 'Setting' and press **OK** key.
- 3) Use 4 directional key  to switch rely to 'On' status.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

■ Disable rely function

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the 'Setting' and press **OK** key.
- 3) Use 4 directional key  to switch rely to 'Off' status.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

3.13 Activate / inactivate camera flash mode

■ Activate camera flash mode

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the 'Setting' and press **OK** key.
- 3) Use 4 directional key  to switch flash mode to 'On' status.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

■ Inactivate camera flash mode

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad.
- 2) Use 4 directional key  to select the 'Setting' and press **OK** key.
- 3) Use 4 directional key  to switch flash mode to 'Off' status.
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

3.14 LCD brightness control

- 1) Press **MENU** key for 2~3 seconds where it is located on the front of the keypad
- 2) Use 4 directional key  to select the 'Setting' and press **OK** key.
- 3) Use 4 directional key  to control brightness level (1~5)
- 4) Press **OK** key for some seconds to save the setting and return to the main screen.

Warranty

■ The warranty is only valid under the following terms and conditions.

1. This product is manufactured under strict quality control and inspection.
2. The warranty period is 1 year from the purchase date of the product. If there is a problem or defect found in this product, during this period, under using in normal condition, the product can be either be repaired or replaced.
3. There are some cases. when the customers to pay to receive the after service program during the warranty period.
4. If a failure occurs please contact place of purchase or call +82-31-695-8404.

■ Paid Service

1. Case of when the product is damaged by individuals

- Case when the damage is occurred by customer's negligence or mishandling.
- Case when this product is operated in abnormal or extreme environment.
- Adjustment, modifications, disassembly or any alteration of the product done by personal not authorized by

Insoapck co., Ltd.

2. Other Cases

- When this product is damaged by accidents or when it got exposed to liquids and food, moisture, extreme high or low temperatures or environmental conditions.

- The case when the parts need to be replaced by extensive use.

※ When returning the product for repair or replacement, proof of purchase must be provided.

FCC Compliance Information : 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

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

RF Radiation Information

RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is widely used in communication, medicine, food processing and other fields.

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999;
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures when in PTT mode and transmit should no more than 100% of time when in repeater mode.

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Compliance with RF Exposure Standards

The 2-way radio complies with the following RF energy exposure standards and guidelines:

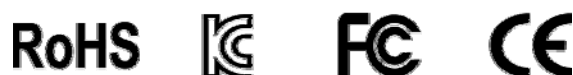
- United States Federal Communications Commission, Code of Federal Regulations; 47

CFR §§ 1.1307, 1.1310 and 2.1093

- American National Standards Institute (ANSI) / Institute of Electrical and Electronic

Engineers (IEEE) C95. 1-1992

- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition



Product		Model	
Purchased date	. .	Serial no.	
Place of purchase		Warranty period	1 year

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the 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:

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push

the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting 50 % of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).

- Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.
- When worn on the body, always place the radio in a approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.
- If you are not using a body-worn accessory and are not using the radio in the intended use position in front of the face, then ensure the antenna and the radio are kept at least 2.5 cm (one inch) from the body when transmitting. Keeping the radio at the proper distance is important because RF exposures decrease with increasing distance from the antenna. Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.
- For a list of approved accessories (see the user manual), or (visit the following website which lists approved accessories: www.insopack.co.kr

FCC License Information (Part 90 Licensed device)

This radio operates on communications frequencies which are subject to FCC (Federal Communications Commission) Rules and Regulations. FCC Rules require that all operators using Private Land Mobile radio frequencies obtain a radio license before operating their equipment.