0CONTENTS

**General Features**
1. Ultra compact design & size
    (102 x 50 x 43.2mm, 335g with high capable battery)
2. Heavy durable construction
3. 16 channels
4. 38 CTCSS/ 83 CDCSS
5. PC Programmable, transferable by cloning
6. Time-out timer (TOT)
7. Busy channel lock-out (BCLO)
8. Battery saving mode
9. Low battery alert
10. DTMF PTT-ID
11. Button lockable
12. Talking range to 5 miles
13. Transmit output power High/Low
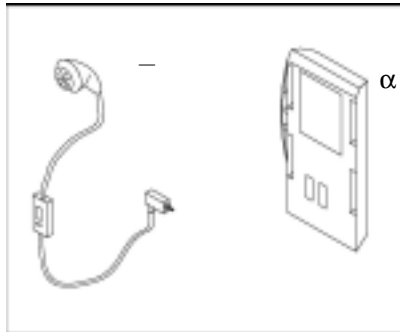14. DC7.5V Ni-MH battery

Unpacking

Unpack and check that all items have been enclosed.

Packing contents: radioαantennaβbatterypack (1,350mA) χbelt cilpδhand strapεchargerφuser`s manual

α βα χ

δ ε φ
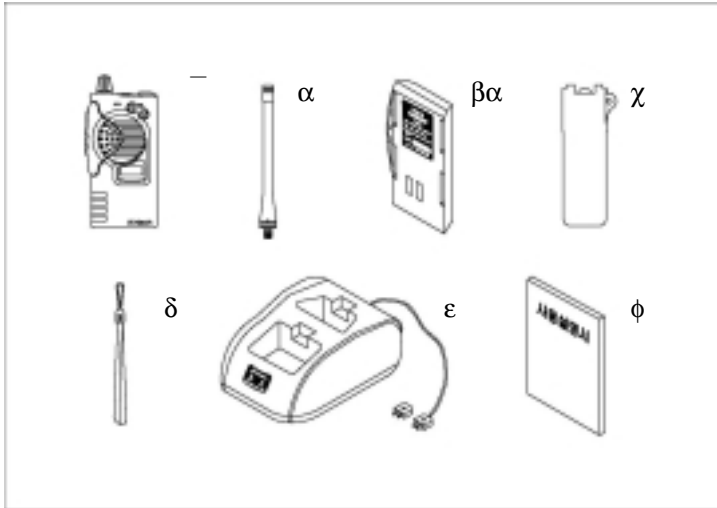
Optional Accessories

1. External earphone & MIC. (APE–10)
2. Additional battery pack (720 mAH, HM–720)

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Getting Ready

1. Installation, Removal Belt Clip
   Installation: align the belt clip with the plastic slots of the battery pack. Slide the belt clip onto the battery pack, pushing firmly until a click heard.
   Removal: hold up the belt clip release tab with a fingernail or a coin (or like instrument). While holding up the release tab, slide the belt clip out and away from the battery pack.
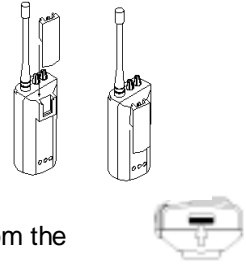
2. Installation, Removal Battery Pack
   Installation: turn off the transceiver. Hold the transceiver with the back of the unit facing up. Place the battery pack against the back of the transceiver so that the tabs on the transceiver engage the four openings in the battery pack. Slide the battery pack toward the top of the transceiver until a click heard.
   Removal: turn off the transceiver. Hold the radio with the back of the unit facing up. With the thumbnail of your other hand slide the latch lever down. While holding the latch lever down, slide the battery pack down toward the bottom of the transceiver. Separate the battery pack from the transceiver.

3. Installation Antenna
   Rotate the antenna clockwise until it is seated firmly.

   *. Before your starting operation, make sure the battery is fully charged.

Description
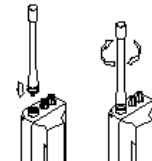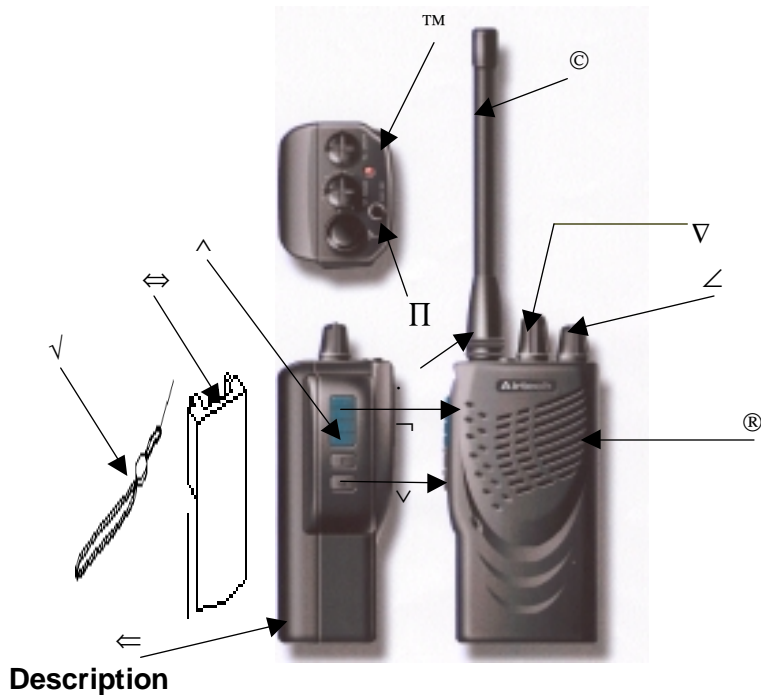
∠ Power on / off and Volume Control Switch
　　Turn the transceiver on by rotating power on / off and volume control switch clockwise and control the volume.

∇ Channel Select knob
　　Rotate the Channel Selector as you desire channel number.
® Speaker .
© Helical Antenna.

™ Tx / Rx Indicate LED (3 colors)

Red	On	Transmitting
	Blinking	Low battery
Green	On	Receiving, monitoring
	Blinking	Different sub-tone when receiving
Orange	On	Initializing, programming and cloning

∏ External Earphone/MIC and Programming Jack Socket
√ Hand Strap
· Antenna Connector
¬ PTT(Push To Talk) Button
Hold down to transmit, release to receive.
∧ Function Button
Refer to "OPERATION" page 7.
∨ Monitor Button
　　Press to monitor. Holding down over 2 seconds keeps monitoring function on, and press shortly again or PTT Button to stop.
⇔ Belt Clip
⇐ Battery Pack

Operation

1. Power Turn on / off and Volume Control
   Rotate the Power on/off and Volume Control Switch∠ clockwise to turn power on, then the LED√ lights orange and power–up tone is generated after about on second, indicating the transceiver has passed the self–diagnostic. When you turn on the transceiver, it comes same channel and function with your last using. Rotate this switch∠ clockwise to increase the volume or counterclockwise to reduce the volume. Rotate it∠ counterclockwise fully to turn power off.

2. Channel Selecting
   Rotate the Channel Select knob as you desire a channel number.

3. Transmit
   Hold down the PTT Button¬ and talk to MIC in 5~7Cm distance. The LED™ lights red on transmitting. Release the PTT button¬ to stop transmitting.

4. Receive
   Choose the channel by pressing Channel Select Button▽ as you desire. The LED™ lights green on receiving. In case the signal doesn't match in using sub–tone, green light blinks.

5. Monitor
   Press the Monitor Button∨ to monitor. Holding down Monitor Button∨ over 2 seconds keeps monitoring function on, and press Monitor Button∨ shortly or press PTT Button¬ to stop.

6. Scan
   1). Scan will be started by press and hold the function button more than 1 second.

In case Priority Scan not settled down
1) mem 1ch > mem 2ch > mem 3ch > …..

In case 1 cannel of Priority Scan is settled down
2) mem 1ch > pri ch > mem 2ch > pri ch > …..

In case 2 cannels of Priority Scan are settled down
3) mem 1ch > pri 1ch > pri 2ch > mem 2ch > …..

   2). Tx channel of scanning
       a). Priority type : priority channel(the channel that is set by the channel selector)
       b). Non priority type : last busy channel
   3). While in scanning mode, function button is pressed 2 times rapidly the radio will return to the last busy channel The priority channel remained the channel that is indicated by channel selector.
   4). While the radio is stopped scanning on a busy channel, pressing the monitor button will cause scan to resume and temporarily bypass the busy channel. If the channel become busy again scan will stop.
   5). While the radio is stopped scanning on a busy channel, press and hold the monitor button more than 1 second will cause this channel to be deleted from scan list until scan list is reset.

7. Selcall function : will be added….

Charger and Battery

1. Battery (Ni-MH)

Voltage		DC 7.5V
Duty time (5-5-90)	HM-1350	Over 8 hrs
	HM-720	Over 4 hrs

2. Charger

Input power		Free voltage (AC90~250V)
Charging time	HM-1350	Appr. 100min
	HM-720	Appr. 60min
Operating temperature		0ºC~55ºC

Connect the charger to electric power supply (free voltage AC 90~240 V). Turn the transceiver power off and put into front socket of the charger. The red light turns on during charging and the green light turns on when finished. When you put two batteries together, the front one charges first then the rear one starts charging.

- When you put the battery on rear cup of the charger for charging, the charger checks voltage. If voltage is under 7.4V, the charger starts discharging for 4 minutes then checks again. If voltage is still fewer than 7V, it discharges until voltage is 6V then starts charging.

Red	On	Charging
	Blinking	Abnormal battery
Green	On	Fully charged
Orange	On	Stand-by for charging (rear cup)
	Blinking	discharging

Specifications

Model		70-112B
Dimension (HxWxD)		102x50x39.2mm (720mAH Battery), 102x50x43.2mm (1,350mAH Battery)
Weight (With Battery)		150g (243g/310g)
Operating Voltage		DC 7.5V
Operating Temp.		-30 ~ 60
Battery Life (H/L) 720mAH Battery 1,350mAH Battery		(based on 5% Tx: 5% Rx: 90% STBY) 6hrs/8hrs 10hrs/15hrs
Channels		16
Privacy Codes		38 CTCSS, 83 CDCSS
Band Width		12.5KHz/25kHz switch able
Frequency Range	Tx	150~174MHz
	Rx	150~174MHz
FM Hum & Noise	Tx	-40 dB
	Rx	-40 dB
Rx Sensitivity		-119 dBm (0.25uV)
Rx Spurious Response		-60dB/-70dB
Rx Selectivity		-60dB/-70dB
Rx Intermodulation		-65dB
Tx Power (H/L)		4.8W/2W
Tx Spurious Rejection		-60 dBc
Audio Power (8Ω)		500mW (Max.)
Frequency stability		+/- 2.5ppm

Accessories

Desk Rapid/Trickle Charger with Adapter	ACR-130/1.5 hrs
720 mAH Ni-MH Battery	HM-720
1,350 mAH Ni-MH Battery	HM-1350

User's Manual

Land Mobile Radio (LMR)

Model: 70-112B

Airtech Information & Communication Co., Ltd.