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GENERAL FEATURES

General Features

- Ultra compact design & size
115x53x28mm, 138g only
- 38 CTCSS
- Button Lock
- Scan & Priority Scan
- Beep on/off
- Talking range to 4 miles
- Transferable by cloning
- Clear voice transmission and reception
- Rugged construction

UNPACKING

Unpack and check that all items have been enclosed.

Packing contents: 1. Radio/Antenna, 2. Battery, 3. Belt clip, 4. Hand strap, 5. Charger, 6. User's manual

GETTING READY

1. Installation, Removal the Belt Clip

Installation: align the belt clip with the plastic slots of backside of unit. Slide the belt clip onto the unit, pushing firmly until a click heard.

Removal: hold up the belt clip release tab with fingernail or coin (or like instrument). While holding up the release tab, slide the belt clip out and away from the unit.

2. Installation the Battery Pack

Installation: turn off the radio. Unscrew the battery pack cover lock screw by rotating counterclockwise with coin (or like instrument). Open the cover and insert the battery pack in right position. Close the cover and screw the cover lock screw.

3. Charging the Battery

Before your starting operation, make sure the battery is fully charged. (Refer to charging method next page)

DESCRIPTION



•power on/off button •function button •LED

Push 0.5 second to turn power on, push 0.5 second again to turn power off.

Indicate LED

| | | |
|-------|----------|--------------------------------|
| Red | on | Transmitting, charging |
| | Blinking | Low battery alert |
| Green | on | Receiving, recharging finished |
| | Blinking | Different sub-tone when |

| | |
|--------------------|-------------------|
| | receiving |
| Red, green both on | Abnormal charging |

•up/down button

You can select the audio volume (0~15), the channel and the function mode on or off with this button.

•function button

Press to go function mode (refer to next page).

•monitor button

Press to monitor. Holding down over 2 seconds keeps monitoring on. Press monitor button again to stop.

•enter button

Press to finalize setting.

•PTT(push to talk) button

Hold down to transmit, release to receive.

•LCD display panel

•speaker

•microphone

Talk 5• in distance during transmitting.

•antenna

•external audio/microphone and adapter socket

•belt clip release tab

•battery pack cover

•cover lock screw

•belt clip

•hand strap

OPERATION

1. Power turn on/off and volume control

Press power on/off button• 0.5 second to turn power on, press 0.5 second again to power off. Press up/down button• to increase or reduce the audio volume (00 ~ 15). Holding down up/down button• makes to move fast.

2. Transmit

Choose the channel as you desire. Hold down the PTT button• and talk to microphone• in 5• distance. The LED•(power button) lights red on transmitting. Release the PTT button to stop transmitting.

3. Receive

Choose the channel as you desire. The LED• lights green on receiving. In case the signal doesn't match sub-tone, the green light blinks.

4. Monitor

Press the monitor button• to monitor. Holding down monitor button over 2 seconds keeps monitoring function on. Press the monitor button shortly again to stop.

FUNCTION MODE

1. Channel select

If you press the function button• once, the channel number in LCD blinks. Then, select the channel wanted by pressing

up/down button•. Press the enter button• to finalize or press the function button• to go on next mode



2. Sub-tone select

During the sub-tone number blinking, select the sub-tone wanted by pressing up/down button•. It has from 01 ~ to 38.



3. Scan

During the scan sign blinking, press the up button• to upward scan or press the down button• to downward scan. The transceiver stops scanning after detecting a signal and remains on the same channel until the signal drops out for 2 seconds. Press the up/down button• to go on scanning even if it remains on the same channel for receiving. Press the PTT button• to stop.



4. Priority scan

During number blinks. Then press the up/down button• to priority scan sign blinking, press the up/down button• to choose on or off. When you choose `on`, the channel select the channel wanted.



This function scans selected channel when the radio is standing by on the other channel.

5. Button lock

During button lock sign blinking, press the up/down button• to choose on or off. This function prevents from changing the channel by unintended pressing of the up/down button

(only PTT button and power button work).

6. Beep tone

During beep tone sign blinking, press the up/down button• to choose on or off.



7. Power save

During power save sign blinking, press the up/down button• to choose `00`, `01`, `02`. 00: no power saving, 01: normal power saving, 02: strong power saving.



8. Squelch level

During squelch level sign blinking, press the up/down button• to select squelch level (00 ~ 15). Select the lower number for easy opening, select the higher number for hard opening as circumstance condition (it set 08 in producing)



ORECHARGING THE BATTERY

1. Battery (Ni-MH)

| | | |
|--------------------|--------|------------|
| Voltage | | DC 7.5V |
| Duty time (5-5-90) | HM-650 | Over 8 hrs |

2. Charger

| | | |
|-----------------------|--------|--------------------------|
| Input power | | Free voltage (AC90~250V) |
| Charging time | HM-650 | Appr. 1.5 hrs |
| Operating temperature | | 0°C~55°C |

Connect the charger to electric power supply (free voltage AC 90~250 V). Turn the transceiver off and put into front pod of the charger. The red light turns on during rapid charging and the green light turns on during trickle charging. When you put two batteries at same time, the rapid charging charges first then the trickle charging starts.

LED

| | | |
|-------|----|---------------|
| Red | On | Charging |
| Green | On | Fully charged |

Low battery alert

LCD shows battery condition (••••).

The indicate LED•(power button) will blink red, if the battery falls below a low voltage level, LCD shows “oFF”.

SPECIFICATIONS

| | | | | | |
|-----------------------|--|-------------------------------|---------|---------|---------|
| | | ARH-222 | ARH-444 | ARH-465 | ARH-446 |
| Dimension (HxWxD) | | 115x53x28mm (650 mAH Battery) | | | |
| Weight (With Battery) | | 138g (215g) | | | |
| Operating Voltage | | DC 7.5V | | | |
| Operating Temp. | | -20 ~ 60• | | | |

| | | | | | |
|---|----|-------------------|---------|-----------------------------|--------------------|
| Battery Life (5:5:90) 650mAH Battery | | 8 hrs | | | 10hrs |
| Channels | | 22 | 16 | 16 | 8 |
| Privacy Codes | | 38 CTCSS | | | |
| Band Width | | 25KHz | 12.5KHz | 25KHz | 12.5KHz |
| Frequency Range | Tx | 222MHz | 444MHz | 462.5625 ~467.725 MHz | 446.0~44 6.1MHz |
| | Rx | 222MHz | 444MHz | 462.5625 ~467.725 MHz | 446.0~44 6.1MHz |
| FM Hum & Noise | Tx | -40 dB | | | |
| | Rx | -40 dB | | | |
| Rx Sensitivity | | -119 dBm (0.25uV) | | | |
| Rx Spurious Response | | -60 dB | | | |
| Rx Selectivity | | -60 dB | | | |
| Rx Intermodulation | | -60 dB | | | |
| Tx Power | | 2W | | | 0.5W |
| Tx Spurious Rejection | | -60 dBc | | | |
| Frequency stability | | ±5 ppm | | | |

Accessories

| | |
|-------------------------------------|-----------------------|
| Desk Rapid / Trickle Charger (SMPS) | ACR-650/1.5 hrs |
| 650 mAH Ni-MH Battery | HM-650 |
| APE-10 | Earpiece with PTT MIC |

USER'S MANUAL

ARH Series

ARH-446 (PMR446)
ARH-465 (GMRS)
ARH-444 (Semi LMR)
ARH-222 (Semi LMR)
ARH-448 (FRS)

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