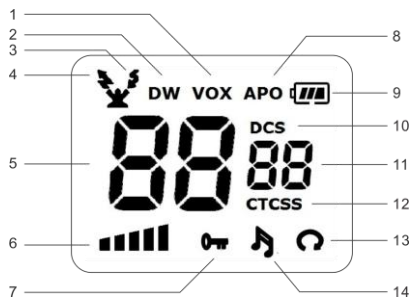




1. LCD display
2. Earphone & Charger Jack
3. PTT key
4. Up key
5. Down key
6. Power On/Off key
7. Scan key
8. Menu / Key lock key
9. Call Tone key
10. Microphone
11. Speaker
12. Antenna

1. VOX
2. Dual Watch
3. RX
4. TX
5. Main Channel Number
6. Speaker Volume
7. Key Lock
8. APO (Auto Power Off)
9. Battery Level
10. DCS
11. Code for CTCSS/DCS
12. CTCSS
13. Scan
14. Call Tone

### LCD DISPLAY ICONS



### MAIN FEATURES

- Frequency: 409MHz
- Power output < 0.5W
- 20 channels
- 38 CTCSS code
- 83 DSC code
- 10 km optimal range
- Dual Watch
- 3 VOX levels
- 10 Call tones
- 5 levels Speaker volume
- Scan
- Key lock function
- Auto Power Off

### PRECAUTIONS

- Read this manual before use the radio.
- Avoid the direct exposure to solar rays and/or in front of heat.
- Do not use adaptor and/or batteries diverged from that specified on instructions manual.
- Do not operate the radio in hazardous environments, explosion or fire may result.
- Do not operate the radio in high humidity, dusty or explosive environment.

- Clean by using a cloth slightly dampened. Do not use alcohol, solvents or abrasives etc.
- Do not attempt to modify the radio. The radio is designed to comply with HK OFCA specifications.
- The LCD display is made of glass and maybe damaged if dropped or impacted.

### INSTALLING / REMOVING BELT CLIP

#### Installing Belt Clip

- Slide the Belt clip into the slot as shown in Figure 1. A "click" indicates the Belt Clip is locked into position.

#### Removing Belt Clip

- Pull the belt clip latch forward
- While pulling the belt clip latch, push up the belt clip as shown in Figure 2.

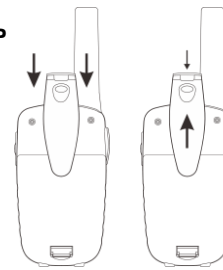


Figure 1



Figure 2

### INSTALLING BATTERIES

- Slide down the Battery compartment cover.
- Install the rechargeable batteries by following the orientation as shown in Figure 3.
- Replace the Battery compartment cover.

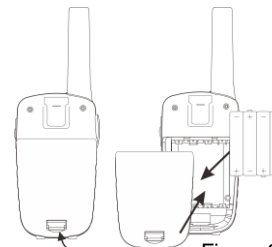


Figure 3

### WARNING

- Follow the polar directions and insert 4 x AAA Ni-MH rechargeable batteries.
- Incorrect positioning can damage both the batteries and unit.
- Don't try to recharge non-rechargeable batteries.
- Make sure the battery compartment cover is securely locked in place when you are charging the batteries.
- Dispose of used batteries safely and in a way that will not harm the environment, never try to burn them or put them anywhere, they could get burnt or punctured.
- Don't leave dead batteries in you unit. They might leak if you do.

### CHARGING BATTERIES

When the "Battery level icon is low, you need to charge the battery with the enclosed AC/DC adaptor .

#### Charging with AC/DC adaptor

- Plug the adaptor into the wall socket and the other end into the earphone jack on the right side of the radio.
- The unit will automatically turn off and the LCD "Battery" Icon will flash.



Figure 4

- To charge fully from empty require about 8 ~ 10 hours.
- After charged, unplug the adaptor from the socket and the radio will automatically turn on.

### WARNING

- To avoid damage to the radio use only original accessories.
- The radio will be slightly warm during charging.

### GENERAL OPERATIONS

#### 1. TRANSMITTING RANGE

- The talk range depends on the environmental and terrain. It will be reach (up to about 10km) in wide open spaces, without obstructions such as hills or buildings. Don't try to use two PMR units which are less than 1.5m (5feet) apart. If you do, you may have experience interference.

#### 2. POWER ON/OFF

- To power On the radio, press Power On/Off Key for 2 seconds until a beep is heard and the LCD display turn on.
- To power Off the radio, press Power On/Off key for 2 seconds until LCD display turns off.

#### 3. MAKING COMMUNICATIONS

The radio has 8 main frequencies and 38 CTCSS codes or 83 DCS codes effectively giving you 968 channels. You can communicate with any other user who is using the same combinations, providing they are within range.

#### 4. SPEAK TO OTHER RADIO

- Press & hold the PTT key, LCD TX icon indicating the radio is transmitting.
- Hold the radio in a vertical position with the microphone 3-5 cm from your mouth and then speak.
- When you finish speaking, release the PTT key and a beep tone will be heard.

#### 5. LISTEN TO OTHER RADIO

- The radio will automatically sound received signal from the other radio with the same channel and LCD shows the icon .
- When you press the PTT key, you can't listen to other radios. Make sure you do not press PTT key for listening.
- Adjust volume control if necessary.

#### 6. ADJUSTING SPEAKER VOLUME (5 LEVELS)

- Press the Up key to increase the volume.
- Press the Down key to decrease the volume.

#### 7. TALK TIME-OUT FUNCTION

- Time-out function can avoid transmitting by chance and prolong the battery life.
- The radio will stop transmitting and sound a warning tone when PTT is held over 3 minutes. You then need to release PTT and press again for further transmission.
- In VOX mode, the unit will stop transmitting and sound a warning tone after continuous talk for 3 minutes. You can re-activate VOX after the time-out. (Please refer to VOX function for detailed VOX operation).

#### 8. MENU FLOW CHART

Press Menu key once to enter main channel selection, press again for next function selection etc.

Main Screen → Main Channel → CTCSS → DCS → Dual Watch → VOX → Call Tone → Beep Tone → Roger Beep → Auto Power Off → Main Screen

## 9. SELECT CHANNEL

To select the main channel

- Press the **[F1]** key once, Main channel number displayed will flash.
- Press **▲** or **▼** key to select your desired main channel number.
- Press the PTT key to confirm and quit or press **[F1]** to continue next function setting.
- You have 10 seconds to decide before auto-reverting back to the main screen.

## 10. CTCSS/DCS CODE FUNCTION

This function can help you select your group (38 CTCSS codes / or 83 DCS codes) of users on the same channel. Only the users with the same CTCSS/DCS code can listen and talk to each other. Please note that selecting a CTCSS/DCS code does not assure total privacy. In radio communication, any PMR 446 radio can listen to all communications on the same channel when using the default standard setting with CTCSS/DCS = 0 (OFF).

### 10.1 CTCSS Code

- Press the **[F1]** key twice, CTCSS code display will flash.
- Press **▲** or **▼** key to select your desired CTCSS code from 1 to 38, 0 is OFF.
- Press the PTT key to confirm and quit.

### 10.2 DCS Code

Each channel also has 83 digital codes to let you set up group of users for more secured private communication.

- Press the **[F1]** key 3 times, DCS code display will flash.
- Press **▲** or **▼** key to select your desired DCS code from 1 to 83, 0 is OFF.
- Press the PTT key to confirm and quit.

## ⚠ IMPORTANT

- The unit will use the last codes either CTCSS or DCS being selected and confirmed.

## 11. DUAL WATCH

The unit has dual watch function. You can monitor two channels, the current and another (dual watch) channel. If the unit detects a signal on either channel, it will stop and receive the signal.

- Press the **[F1]** key 4 times, LCD display **DW** icon.
  - Press **▲** or **▼** key to select the dual watch channel (1-8, except the current channel), LCD display OF is OFF.
  - After turning on the function, LCD will display **DW** icon
- Press the PTT key to confirm and quit or press **[F1]** to continue next function setting.

## 12. VOX (Hands-Free Function)

The unit has a built-in Voice Activated Circuit (VOX) function. You can enjoy talking and listening without pressing PTT key. To have better performance, you can use this function with the external earphone (optional accessories).

- Press the **[F1]** key 5 times, LCD display **VOX** icon and VOX sensitivity digit will flash.
- Press **▲** or **▼** key to select sensitivity level from "OFF, 1, 2, 3" for "OFF, Low, Medium and High respectively.
- After turning on the VOX function, LCD will display **VOX** icon. Press PTT to confirm and quit.

Please speak close to the mic in order to activate VOX function.

## 13. SENDING CALL TONE

You can use 1 of 10 different "Call Tones" to get attention of other user on the same channel.

- Press the **[F1]** key and the tone will sound, LCD will display the transmit icon **[T]** and **[T]** icon and your call tone will be sent.

## 14. SELECTING CALL TONE

- Press the **[F1]** key 6 times, LCD display **[T]** icon and call tone number will flash.
- Press **▲** or **▼** key to select your desired call tone.
- Press the PTT key to confirm and quit or press **[F1]** to continue next function setting.

## 15. KEY TONE ON/OFF

The unit has the function to turn the beep tone on or off.

- Press **[F1]** key 7 times, LCD display "t o".
- Press **▲** or **▼** key to turn on (LCD display ON icon) or turn off (LCD display OF icon).
- Press PTT to confirm and quit or press **[F1]** to continue next function setting.

## 16. ROGER BEEP

The roger beep function enables a short tone signal which is transmitted after releasing the PTT button.

- Press **[F1]** key 8 times, LCD display "r o".
- Press **▲** or **▼** key to turn on (LCD display ON icon) or turn off (LCD display OF icon).
- Press PTT to confirm and quit or press **[F1]** to continue next function setting.

## 17. AUTO POWER OFF (APO)

- Press **[F1]** key 9 times, LCD display **APO** icon.
- Press **▲** or **▼** key to select auto power off time from 0 to 6 hours.
- Press PTT key to confirm and quit or press **[F1]** to return to Main screen.
- After turning on the function, LCD will display **APO** icon and automatically turn off at designated time.

## 18. SCANNING CHANNELS

- Press the **[F1]** key once and LCD will display **[S]** and radio will start scanning.
- LCD display shows the scanning channel one by one.
- It will stop at those channels with signal for a while.
- Press **▲** or **▼** key to continue scanning.
- Or if you want to use this channel, press PTT to confirm and your radio will change to this channel.
- If there is no signal, it will continue to scan. Press the PTT key and it will stay on the current selected channel and quit the scanning function. Or press **[F1]** to quit and enter next function setting.

## 19. MONITOR

- Press and hold **[F1]** key to break the squelch noise and open (un-squelch) the frequency for monitor function. Release the **[F1]** key to stop.

## 20. KEY LOCK

- Press and hold **[F1]** key for 3 second, LCD display **[L]** icon.
- All keys are locked except PTT and **[F1]** key.
- To unlock, press and hold **[F1]** key for 3 second again.

## 21. MICROPHONE / EARPHONE JACK

The unit is equipped with a microphone / Earphone jack located at the right side. You can use an optional earphone (not included) for handsfree function.

## SPECIFICATIONS

Operation Frequency Range	: 409.7500 ~ 409.9875 MHz
Modulation	: FM
RF Output Power	: < 500mW e.r.p
Channels	: 20
CTCSS sub-code	: 38
DCS sub-code	: 83
Power Supply	: 1.2V Ni-Mh AAA battery x 4

Technical Specifications comply with OFCA HKTA1044

Channel Frequency Table

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	409.7500	11	409.8750
2	409.7625	12	409.8875
3	409.7750	13	409.9000
4	409.7875	14	409.9125
5	409.8000	15	409.9250
6	409.8125	16	409.9375
7	409.8250	17	409.9500
8	409.8375	18	409.9625
9	409.8500	19	409.9750
10	409.8625	20	409.9875