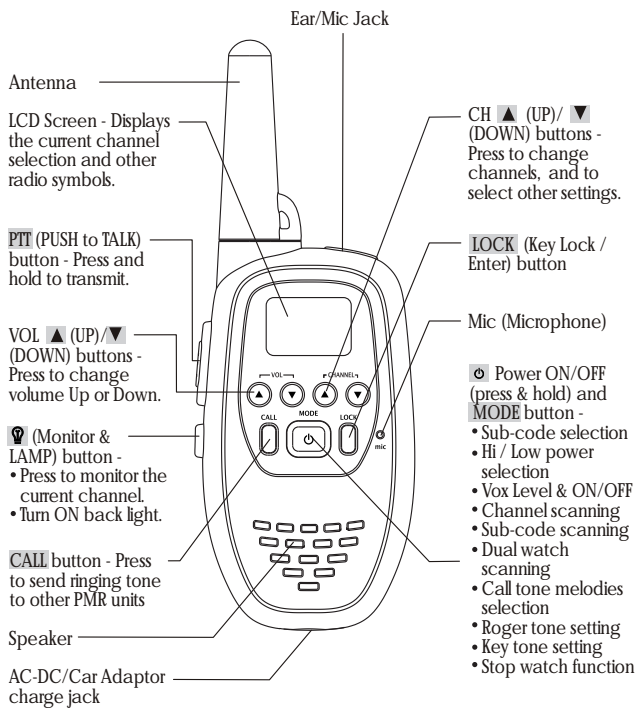
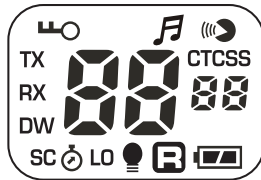


## Communicator Controls



## 1. LCD Screen



Channel Number. Changes from 1 to 8 as selected by the user.



CTCSS Code. Changes from 1 to 38 as selected by the user.



Flash when start charging function.



Displayed when the Vox feature is enabled.



Displayed when transmitting a signal.



Displayed when receiving a signal.



Blinks during Channel scan mode.



Displayed when the Dual Watch function is turned ON.



Displayed when the Key Lock feature is activated.



Displayed when Key tone is turned ON



Displayed when the Stopwatch feature is turned ON.



Displayed when turn to low power



Power saver indication

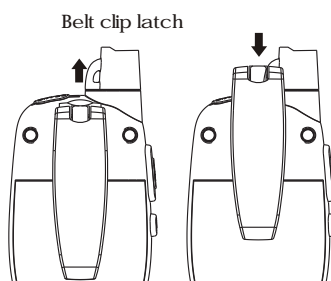


Displayed when Roger tone is turned ON.

## 2. Installation

### 2.1 Removing the Belt Clip

- Pull the Belt Clip Latch away from the PMR.
- While pulling the Belt Clip Latch, push up the Belt Clip as shown in Figure 1.



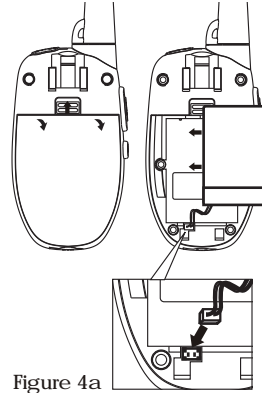
### 2.2 Installing the Belt Clip

- Slide the Belt Clip into the slot as shown in Figure 2.
- A Clip is locked into position.

## 2.3 Installing the Battery Pack

Figure 3

Figure 4



- Release the BATTERY COMPARTMENT COVER LATCH located on the rear side of the unit (see Figure 3) and remove the BATTERY COMPARTMENT COVER from the BATTERY COMPARTMENT.
- Install 1x3.7V Lithium rechargeable battery pack (optional) as shown (See Figure 4).
- Insert the battery pack connection pin into the jack located inside battery compartment (See Figure 4a). Use pen or other tool to press and ensure pin being fully pushed into jack.
- Reinstall the BATTERY COMPARTMENT COVER and lock the BATTERY COMPARTMENT COVER LATCH into position.

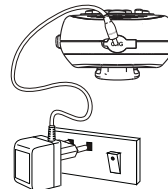
This unit has a built in POWER SAVER feature for maximum battery life. But when the COMMUNICATOR is not being used, conserve battery power by pressing the button to OFF. Remove the battery pack if the unit will not be used for a long period of time.

## 2.4 Charging the Rechargeable Battery pack

### Using the AC-DC Adaptor plug

- Insert the small plug on the end of the AC-DC adaptor into the Charger jack located at the bottom side of the unit (Figure 5).
- Plug the AC adaptor into the AC wall outlet.

When charging, the Battery indicator icon will flash on the LCD Screen. It takes about 10 hours to fully recharge the battery if they've become completely run down, new battery takes up to 14 hours to fully charge.



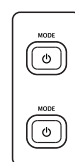
Important:  
Turn OFF the PMR unit when charging. Charge the Battery pack 10-14 hrs. prior to initial use.

### Notes:

- Caution: Danger of explosion if battery is incorrectly placed. For the Rechargeable battery pack, replace only with same type and make of the battery pack that comes with the unit.
- Remove the battery pack if the unit will not be used for a long period of time.
- To reduce the risk of electric shock, do not expose this appliance to rain and moisture.

## 3. Operation

### 3.1 Turning the Unit ON/OFF



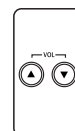
#### To Turn ON;

- Press and hold the (Power) button for two seconds. A beep tone will be heard and the LCD Screen will display the current channel.

#### To switch OFF;

- Press and hold the (Power) button for two seconds. A Dual tone will be heard and the LCD Screen will turn blank.

### 3.2 Adjusting the Speaker volume



There are 8 volume levels.

- To adjust the speaker volume level, press the VOL ▲ (UP) button to increase, or press the VOL ▼ (DOWN) button to decrease. During the adjustment, the LCD Screen will display LE icon and the corresponding number of the volume level.
- When press & hold VOL ▲ (UP) or ▼ (DOWN) buttons, Volume level will be increased or decreased continuously to maximum or minimum setting, users will then hear double beep tone as alert.

### 3.3 Receiving a Call

The unit is continuously in the Receive mode when the unit is turned ON and not transmitting. When a signal is received on the current channel, the **RX** icon will be displayed on the LCD Screen.

### 3.4 Transmitting (sending)



- Press and hold **PTT** (Push to Talk) button to transmit your voice. The **TX** icon will display on the LCD Screen.
- Hold the unit in a vertical position with the Mic (Microphone) 5 cm away from the mouth. While holding the **PTT** button, speak into the mic (microphone) in a normal tone of voice.
- Release the **PTT** button when you have finished transmitting.

#### Important:

- Check the channel activity by pressing and holding the **M** (Monitor) button. You will hear static if the channel is unoccupied. Do not transmit if someone is talking on the current channel.
- In order for other people to receive your transmission, they must also be on the same channel and have set the CTCSS code that you are currently using. Refer to the "Changing Channel" section for more information.

## 4. Functions and Settings

### 4.1 Changing Channels



The PMR has 8 available channels. To change channels, in normal mode; Press the **CH** **▲** (UP) or **▼** (DOWN) button to select the desired channel. The channel changes from 1 to 8, or from 8 to 1.

Note: Refer to the "Channel Table" section of this Owner detailed frequency listing.

#### 4.1.1 Monitor



- You can use the Monitor feature to check for weak signals on the current channels.
- Press and hold the **M** button for 1 second to hear everything on the current channel.
  - Press and hold the **M** button for 5 seconds and enter to auto monitor mode. User will hear two beeps to confirm setting.
  - Press the **M** button again to turn off the Monitor operation.

### 4.2 Changing the CTCSS sub-channels



- Each of the 1-8 channels has 38 sub channels (CTCSS sub-channels). To change channels, in normal modes;
- Press the **MODE** button once, the CTCSS number icon on the LCD Screen will start blinking.
  - While the CTCSS number icon is blinking, press the **CH** **▲** (UP) or **▼** (DOWN) button to select one of the 38 CTCSS sub-channels. (Set this option to transmit and receive a call using the main channels only.)
  - Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

### 4.3 TX Power Hi(High)/Lo(Low) feature



- This feature permits the selection of the transmitting power level to high or low.
- In normal mode, press the **MODE** button 2 times, the **HI/LO** icon will display and start blinking on the LCD screen.
  - Press the **CH** **▲** (UP) OR **▼** (DOWN) button to select your preferred mode.
  - Press the **LOCK** button, you will hear 2 beeps and return to standby mode.

### 4.4 Setting the VOX (Voice Activated) Mode

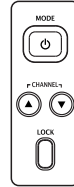


- In VOX mode, the PMR will transmit a signal only when it is activated by your voice or other sounds around you. The unit will transmit for a further for 1 second even if you stop talking.
- Press the **MODE** button 3 times, the **VOX** icon will start blinking on the LCD Screen.
  - Press the **CH** **▲** (UP) or **▼** (DOWN) button to select to ON or OFF mode.
  - Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

Note: VOX operation is not recommended if the PMR will be used in a noisy or windy environment.

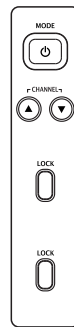
#### 4.4.1 Setting the VOX (Voice Activated) Sensitivity

To set the VOX sensitivity level;



- Press the **MODE** button 4 times, **IE** will be displayed on LCD Screen and the **VOX** icon will start blinking.
- Press the **CH** **▲** (UP) or **▼** (DOWN) button to select the VOX (1, 2, 3, 4 or 5) sensitivity.
- Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

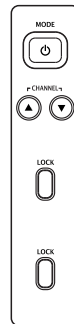
#### 4.5 Setting the Channel Scan



- Channel scan performs searches for active signals in an endless loop from channels 1 to 8. To turn ON;
- Press the **MODE** button 5 times, the **SC** (SCAN) icon and channel number will start flashing on the LCD Screen.
  - Press the **CH** **▲** (UP) or **▼** (DOWN) button to activate the channel scan mode.
  - The channel number on the LCD Screen changes rapidly until an active signal is detected. (To deactivate the channel scan mode, press the **LOCK** (Enter) button. The LCD Screen will immediately return to the normal mode with the previous channel setting.)
  - When an active signal (one of the 8 channels) is detected, channel scan pauses on the active channel.
  - Press the **LOCK** (Enter) button to communicate with the active signal channel, and the channel scan will be deactivated.

- Notes: = When the Channel Scan is activated, the VOX function will be temporarily disabled until the Channel Scan function is turned OFF.  
= The sub-code (CTC) is always 00 during Channel scan. If any signal is received the unit locks on to that channel for 5 seconds and is set to the last scanned channel.

#### 4.6 Setting the Sub Channel Scan

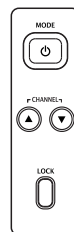


- Sub Channel scan performs searches for active signals in an endless loop from sub channels 1 to 38. To turn ON;
- Press the **MODE** button 6 times, the **SC** (SCAN) and the CTCSS number icons will start flashing on the LCD Screen.
  - Press the **CH** **▲** (UP) or **▼** (DOWN) button to activate the sub channel scan mode.
  - The sub channel number on the LCD Screen changes rapidly until an active signal is detected. (To deactivate the channel scan mode, press the **LOCK** (Enter) button. The LCD Screen will immediately return to the normal mode with the previous sub channel setting.)
  - When an active signal (one of the 38 channels) is detected, channel scan pauses on the active sub channel.
  - Press the **LOCK** (Enter) button to communicate with the active signal channel, and the sub channel scan will be deactivated.

Note: The channel is always current during sub-code scan. If any signal is received the unit locks on to that channel for 5 seconds and is set to the last scanned sub-code.

#### 4.7 Setting the DW (Dual Watch)

This unit is capable of monitoring two channels (main channel, and the DW channel) in the standby mode. To activate the Dual watch mode;



- In normal mode, press the **MODE** button 7 times, the **DW** icon will be displayed and channel digit start blinking on the LCD Screen.
- Press the **CH** **▲** (UP) or **▼** (DOWN) button to select the DW (dual watch) channel (1-8, the main channel).
- Once Dual Watch is on, automatically scan the channel that between 2 prefixed channel and the carrier stop on either activated channel to receive. Dual Watch restarts when the carrier disappears.
- Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

In the normal mode, the LCD screen will alternately display the Main and the DW channel numbers. Whereby the CTCSS code is applicable, the user must set first the CTCSS code number prior to setting the DW channel number.


Note: When the Dual Watch function is activated, the VOX function will be temporarily disabled until the Dual Watch mode is turned OFF.



## 4.8 Changing the Call-Ring tone

You can use the Call-Ring tones to alert the other user/s or to identify yourself. The PMR is equipped with 5 different types of Call-Ring tones. To change the Call-Ring tone setting, in normal modes;



- Press the **MODE** button 8 times, the  (Call-Ring tone icon) will be displayed on the LCD Screen and the current Call-Ring tone number will start blinking.
- While the Call-Ring tone icon is blinking, press the **CH ▲** (UP) or **▼** (DOWN) button to change the setting. A respective Call-Ring tone sound will be played when changing from one tone to another.
- Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

### 4.8.1 Sending a Call-Ring tone



With the PMR in normal mode, press the **CALL** button. The microphone will be muted and the unit will transmit the current Call-Ring tone to other users set to the same Channel and CTCSS code.

## 4.9 Setting the Roger Tone Mode





- Press the **MODE** button 9 times, the **R** icon will start blinking on the LCD Screen.
- Press the **CH ▲** (UP) or **▼** (DOWN) button to select to ON or OFF mode.
- Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

Note: If Roger tone is ON **R** icon will be on standby mode.

## 4.10 Setting the Key Tone Mode




- Press the **MODE** button 10 times, the  icon will start blinking on the LCD Screen.
- Press the **CH ▲** (UP) or **▼** (DOWN) button to select to ON or OFF mode.
- Press the **LOCK** (Enter) button to confirm your selection and return to the normal mode.

Note: If key tone is on  icon will be displayed on standby mode. If key tone off, set volume to max or min will alarm (two beeps).

## 4.11 Setting the Stop-Watch



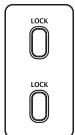
- In normal mode, press the **MODE** button 11 times, the  (Stop-watch icon) and the Channel icon will be blinking on the LCD Screen.
- Press the **CH ▲** (UP) button the timer start counting on the LCD Screen.
- Press the **CH ▼** (DOWN) button to stop the timer from counting. Pressing the **▼** (DOWN) button again to reset the timer display back to zero.
- Press the **LOCK** button to return to the normal mode.



Note: The PMR transmit and Receive function will still operate even if the Stop-watch function is in operation.

## 5. Auxiliary Features


### 5.1 Key Lock

Apart from **Call**, **Monitor** and **PTT** button, all other buttons are locked. An alert tone will be heard when any one of these buttons is pressed.



- To activate the Key Lock feature, press and hold the **LOCK** button for 2 seconds. The  (Lock) icon will display on the LCD Screen.
- To deactivate the Key Lock feature, press and hold the **LOCK** button again for 2 seconds. The  (Lock) icon will disappear on the LCD Screen.

## 5.2 LCD Screen Back Light

- When the unit is powered ON, the LCD Screen back light will illuminate for 10 seconds.
- When  button being pressed once, the LCD Screen back light will illuminate for 10 seconds.

## 5.3 Microphone/Earphone Jack

The PMR is equipped with an auxiliary microphone and earphone jack (located at the upper side near the antenna). The headset is optional. When using the headset the VOX mode is possible too (therefore it is a real handsfree function - no push to talk needed).

## 5.4 Battery LO Indicator



When power is low level, **bA Lo** icon will be displayed on the LCD screen.

Important: Charge the unit for 10-14 hours.

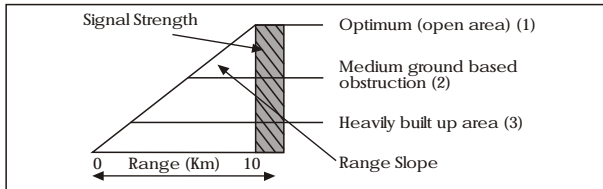


**Specifications:**

Channels Available	8 Channels
CTCSS Sub-channel	38 for each Channel
Output Power (TX)	0.5W
Range	Up to 10 Kms. (high) / 5 Kms. (Low)

**Effective Range**

The Transmission range of the product is dependent on the environment terrain where it is being used, the following diagram attempts to guide the user on the sort of performance to expect for everyday use.



**Range Check**

The Transmission range will be affected as shown in the above diagram. The transmitting range typical values for different environment conditions will be (1) 10 km (2) 5 km (3) 1 km. It should be remembered that these are only guide values as actual achieved distances will be dependent on the environment and terrain.

Note: This radio cannot transmit or receive calls while the unit is charging.

CHANNEL TABLE			
CHANNEL	FREQUENCY (MHz)	CHANNEL	FREQUENCY (MHz)
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375

**CTCSS ( Continuous Tone Coded Squelch System) Frequency Table.**

Sub Channel	Frequency (Hz)	Sub Channel	Frequency (Hz)	Sub Channel	Frequency (Hz)
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3
13	103.5	26	162.2	0	No Tone

NOTE: The maximum transmission range will vary depending on terrain and environment.

**WARNING: Using battery**

- The PMR units operate with 1x3.7V Lithium rechargeable battery pack.
- Rechargeable battery pack should not be thrown with domestic rubbish. You may hand them in at your nearest collection point.

**Troubleshooting Guide**

SYMPTOM	SOLUTION
No power.	<ul style="list-style-type: none"> <li>= Check the battery pack is installed properly.</li> <li>= The battery may be weak.</li> <li>= Replace the old battery pack with a new one.</li> </ul>
Reception is weak.	<ul style="list-style-type: none"> <li>= Press the VOL ▲ (UP) button to increase the receiver volume level.</li> <li>= The receiving signal may be weak and/or out of range.</li> <li>= If this happens press the 🔍 (Monitor) button.</li> </ul>
Cannot change CTCSS sub-channels.	<ul style="list-style-type: none"> <li>= Key lock mode must be deactivated if the Key lock icon 🔒 is displayed on the LCD Screen.</li> <li>= To change CTCSS sub-channels, press the MODE button once, the CTCSS icon blinks on the LCD Screen.</li> <li>= Press the ▲ (UP) or ▼ (DOWN) buttons to change the CTCSS sub-channels.</li> <li>= Batteries may be weak.</li> </ul>
Range is limited.	<ul style="list-style-type: none"> <li>= Battery may be weak.</li> <li>= Replace with new battery pack if LCD shows bALO.</li> <li>= Check the TX Power H/L setting. See the "Effective Range" diagram.</li> <li>= The maximum range will vary depending on terrain and environment.</li> <li>= Open fields provide the maximum range, while steel/concrete structures, heavy foliage, and use in buildings and in vehicles may limit the range significantly.</li> <li>= Wearing the radio close to the body, such as in a pocket or on a belt, will decrease range; change the location of the radio.</li> </ul>
Sound distortion problems.	<ul style="list-style-type: none"> <li>= If you are transmitting, speak in a normal tone of voice, 5 cm away from the Mic (microphone).</li> <li>= If you are receiving, lower the volume to a comfortable level.</li> <li>= Radios too close. Radios must be at least 2 meters apart; increase your distance.</li> <li>= Radios too far apart. Obstacles interfere with transmission. Talk range is up to 10 Km (High power), 5 Km (Low power) in clear unobstructed conditions.</li> </ul>
No communication	<ul style="list-style-type: none"> <li>= Check the channel setting. Both the Transmitting and Receiving PMR units should have the same channel to communicate.</li> <li>= Check the CTCSS code setting. Both the Transmitting and Receiving PMR units should have the same CTCSS code setting.</li> </ul>

