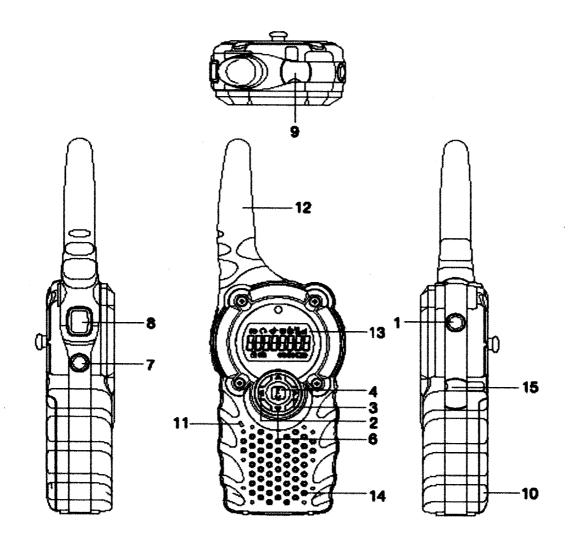
# J COMMUNICATIONS CO LTD. FCC ID: OAJGMRS1500XTM

EXHIBIT #: 5

JOB: 1224AK1

**OPERATION** 

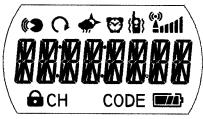


# FUNCTIONS AND CONTROLS

- 1) POWER On/Off Button
- 2) MENU Button
- 3) MENU Button
- 4) MODE/KEY LOCK Button
- 5) UP Button
- 6) DOWN Button
- 7) MONITOR Button
- 8) PTT Button
- 9) EXTERNAL Mic / Speraker
- 10) BATTERY Cover

- 11) Built in Microphone
- 12) ANTENNA
- 13) LCD Panel
- 14) Built-in Speaker
- 15) DC Jack

# 3.2 Description of Icon



- 1) VOX (Voice Activated Transmission) Indicator
  - ( Appears when VOX is activated.
- 2) Auto Scan Indicator
  - Icon appears when the Normal scan channel mode and Priority scan channel mode is activated.
- 3) Alarm Indicator
  - Appears when the alarm mode is on .
- 4) Weatehr Alert Indicator



- 5) Received Signal Strength Indicator
  - Appears when carrier is detected in the two way mode.
- 6) Key Lock Indicator
  - Appears when the key lock mode is activated.
- 7) Channel Position Indicator
  - CH Appears when the two way mode is displayed.
- 8) CTCSS (Coded Tone Controlled Squelch System) Indicator
- CODE Appears when the two way mode is displayed.
- 9) Battery Level Indicator



- Icon indicates the battery charge strength with three level.
- Data is not read and written when warning signal is listened and Icon is blink.
- 3.2.2 Description of Button function
  - 1. Power Button(1)
    - To turn the Unit ON, press and hold the Power Button(1).

- To turn the Unit OFF, press and hold the Power Button(1) for more than 1, 2 second.

## 2. UP(5) or DOWN(6) Button

- Pressing the UP(5) or DOWN(6) Button in stand by mode, Volume is increased and decreased.
- Pressing the UP(5) or DOWN(6) Button in Menu mode allow you to change the setting of menu.

# 3. Mode(4) Button

- Pressing the Mode(4) Button allow you to change the mode.
- If you press the Mode(4) Button during approximately two second, Lock function for menu button is operated and Key Lock Indicator is displayed in LCD monitor.
- To release lock function, press and hold Mode(4) Button for more than 2 second.

# 4. Menu(2, 3) Button

- Pressing the Menu(2, 3) Button allow you to select next menu in function edit mode.

But this Button function is different in Stopwatch mode. It's functions are Start/Stop/Clear.

## 5. PTT (Push-To-Talk) Button(8)

- Pressing the PTT Button(8), Voice signal is transfer to the other unit, Red LED above LCD monitor(13) and Transmission icon(T) in LCD monitor(13) is lighted.
- Removing your finger, the unit stops transmission and return to the receiving stand by mode.
- You can transmit a call signal and unit name by double I PTT Button(8) Keying.

Unit name is changed in SETUP Mode.

## 6. Monitor Button(7)

- Pressing the Monitor Button(7) allow you to hear received signal in the current channel.
- Pressing the Monitor Button(7) for more than 3 second allow you to hear beep tone and received signal in the present channel continuously.

  And Pressing the Monitor Button(7) releases the auto monitoring.

## 7. EXTERNAL Mic/Speaker(9)

- EXTERNAL Mic/Speaker(9) is connected with External ear mic.

#### 8. DC JACK(15)

- DC JACK(15) is connected with External charger.

# 3.3 Operation Method

This Unit have seven mode. Each mode have menu to select functions. Pressing the mode(4) Button allow you to go a different mode

- TWO WAY : GMRS function (Two Way Radio)
- FM RADIO: Receiving FM Radio

- WEATEHR: Weather alert

- COMPASS : Electrical compass function

TEMPERAT: Temperature
 TIME: Watch function
 STPWATCH: Timer function
 SETUP: The rest function

Pressing the menu button(2, 3) allow you to go to another menu. And Pressing the Up(5) or Down(6) allow you to set desired value or menu.

Finishing your selection, you press the monitor(7) or PTT(8) button or ten second is passed, And then the unit state is converted stand by mode.

# 3.3-1 TWO WAY MODE

This mode is composed of 4 menu. These menus are GMRS function.

- The current channel selection
- Coded Tone Controlled Squelch System(CTCSS) selection
- SCAN selection
- VOX selection

# 1) The current channel selection

You can select your desired channel.(01 \* 15CH)

Pressing the menu button(2, 3) in the Standby display of Two Way mode allows you to enter the Channel selection menu with beeping and the current channel is blinking. Pressing the up/down button(5, 6) allows you to select the channel 01 to 15 and then pressing the menu key (right arrow key) allows you to move to the next Coded Tone Controlled Squelch System(CTCSS) selection menu.

# 2) Coded Tone Controlled Squelch System(CTCSS) selection

Pressing the the menu button(2, 3) allows you to enter the Code selection menu with key beeping and the current code is blinking. You can select the code by using up and down button(5, 6).

Pressing the up and down button(5, 6) allows you to select the sub-code 00 to 38 and then pressing the menu button(2, 3) allows you to move to the next Scan Selection menu. You can use channel and code simultaneously to avoid mixed signal and remove signal noise.

### 3) SCAN selection

Pressing the menu button(2, 3) in the Channel/Code Selection menu allows you to enter the Scan Selection menu with key beeping.

Pressing the up/down button(5, 6) in the Scan Selection mode allows you to select Off.

Normal scan or Priority scan while icon is blinking.

If you select the Normal scan, it starts to scan the channel from the current channel.

If you select the priority scan, it scans the current channel and priority channel in turn. You can select Priority channel in setup mode.

# 4) VOX(Voice Activated Transmission) selection

Pressing the menu button(2, 3)in the Scan Selection menu allows you Tt enter VOX selection mode with key beeping.

Pressing the up/down button(5, 6) in the VOX Selection mode allows you to select Off/Hi/Mid/Low while icon is blinking.

No pressing PTT button(8), You can communicate voice to the other unit using mic or ear mic.

If VOX function is selection, icon(

) is (Shed.

#### 3.3-2 FM RADIO MODE

This mode is composed of 4 menu and received FM broadcasting.

- FM Seek Scan

: Auto selection

- FM Fine Tune

: Passive selection

- FM Preset Memory

: Broadcasting frequency memory

- FM only or Two Way

: FM or GMRS selection

### 1) FM Seek Scan

Pressing the menu button (3) in the FM standby display allows you to enter FM seek menu and you can scan the FM radio frequency by using the up/down button(5, 6). If an active broadcast signal is detected, it receives a signal in that channel.

#### 2) FM Fine Tune

Pressing the menu button (3) in the FM seek menu allows you to enter FM tuning menu.

You can increase and decrease FM broadcast frequency by 100 Hz using the up/down button(5, 6).

# 3) FM Preset Memory

Pressing the menu button (3) in the FM Fine menu, "MEM OFF" is displayed on LCD monitor. And then Pressing the up/down button(5, 6) allows you to select "MEM ON", then press the Menu button(3).

If that is so, "M1 87.5" is displayed and "1" blinks. It means that broadcast channel of 87.5MHz is memorized in Memory 1.

You can memory 9 broadcast channel. If you want to memory broadcast channel of 99.5MHz in Memory 5, select 5 by using the up/down button(5, 6). And then pressing the menu button(3) allows you to do auto selection or passive selection.

# 4) FM only or Two way

Pressing the menu button (3) in the FM preset menu allows you to enter FM selection menu.

You can select one of FM OFF/FM WAY by using the up/down button(5, 6).

If "OFF" is selected, you cannot receive GMRS but receive FM radio in the FM mode. And so you cannot receive FM radio but receive GMRS in others mode.

If "WAY" is selected, you can receive FM radio in all modes, except for unit's transmission or reception

#### 3.3-3 WEATHER MODE

Pressing the function key(4) in the FM MODE allows you to enter weather Radio mode shows weather channel operation status after 1 second.

### 1) Weather Channel Selection menu

Pressing the menu key (left/right arrow key) in the Weather standby allows you to enter Weather Channel Selection menu.

Pressing the menu key (left/right arrow key) again will blink the channel Code icon and then pressing the up/down arrow key allows you to select the channel  $01\sim10$ 

### 2) Weather Alert Selection menu

Pressing the menu key (left/right arrow key) in the Weather Channel Selection menu allows you to enter Weather Alert Selection menu. You can select ALERT ON/OFF by using the up/down arrow key. (DEFAULT=OFF)

If the WEA Alert On, this radio always detects the weather Alert On, this radio always detects the weather alert signal (=1050Hz) of weather channel.

#### 3.3-4 COMPASS MODE

Pressing the Mode/key lock button (4) in the Weather Mode allows you to enter Compass radio mode and it shows you the current direction on the basis of which radio antenna is heading for.

These are 8 directions such as N/NE/E/SE/S/SW/W/NW in the compass direction.

# Detailed function by menu

### 1) Calibration menu

Pressing the menu button (2, 3) in the Compass Standby allows you to enter Compass Calibration menu. You select CALIB ON by using up or down button (5, 6), and then you turn the unit 2 cycles slowly, and at that time you must maintain the center of LCD monitor.

If that is so calibration is completed

2) Compass Variation menu.

Pressing the menu button (3) in the Compass Calibration menu allows you to enter Compass Variation menu. You can one out of DECL  $90E \sim 90W$  by using up/down button(5, 6).

#### 3.3-5 TEMPERATURE MODE

This mode is composed of three menu, and seen the current temperature.

- Celsius or Fahrenheit
- Alarm set
- Alarm Limit temperature set

# 1) Celsius or Fahrenheit selection

Pressing the menu button (3) in the Temperature standby allows you to enter the Celsius or Fahrenheit Selection menu, and you can select Fahrenheit or Celsius by using the up/down arrow button(5, 6).

# 2) Alarm set

Pressing the menu button (3) in the Unit Selection menu enters the Alarm Set menu and you can select Alarm function(OFF, ON, +TX) by using the up/down button(5, 6).

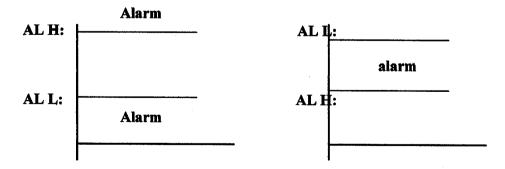
OFF : Alarm OFF ON : Alarm ON

+TX: If Alarm is on, The unit transmit unit name and temperature

automatically (emergency selective calling)

# 3) Alarm Limit Temperature set

Two conditions of Alarm operation



Pressing the menu button(3), then "AL H: 0C" is displayed on LCD monitor. ("C"(Celsius) or "F"(Fahrenheit) is displayed on LCD monitor. It was

selected before) And then you change value by using up(5) or down(6) button.

Pressing the menu button(3), then "AL L: 0C" is displayed on LCD monitor. And then you change value by using up(5) or down(6) button.

### **3.3-6 TIME MODE**

This mode is composed of 3 menu. You can use a watch in this mode.

- Time calibration
- Alarm selection
- Alarm time set

# 1) Time calibration

Pressing the menu button(3) in the Time Standby allows you to enter time Calibration menu and you can select the time unit in the 12/24 hour by using up/down button(5, 6).

### 2) Alarm selection

Pressing the menu button(3) in the Time calibration menu allows you to enter the alarm selection menu and you can select the Alarm OFF/Alarm ON by using up/down button(5, 6).

If the alarm is on, Alarm icon ( ) is splayed and the radio makes a alarm beeping at the set time.

### 3) Alarm time set

Pressing the menu button(3) in the Alarm selection menu allows you to enter the Alarm time set menu, you can select hour/minute or AM/PM by using menu button(2, 3) and change setting time by using up/down button(5, 6).

### 3.3-7 STOPWATCH MODE

Pressing the mode/key lock button(4) in the Time mode allows you to enter the Stop Watch mode.

You can operate the stopwatch by using the menu button(2, 3).

#### 3.3-8 SETUP MODE

This mode is composed of 9 menus.

- "P-CH": Priority scanning channel selection
- "DLAY ": VOX OFF DELAY TIME set
- "CALL" : CALL beep sound selection
- "RING": CALL signal selection
- "ROGER" : ending sound selection when transmission is ended

- "BEEP": key beep selection

- "QUIET" : Quiet selection

- "TOT": Time Out Timer selection

- "NAME": User name(Unit name) set

Pressing the menu button(2, 3) allows you to select the menu, and then you can change Menu's state by using the up/down button(5, 6).

1) "P-CH": Priority scanning channel selection

Pressing the menu button(3) in the SETUP mode allows you to enter in the priority scanning channel selection menu. You can select the Priority scanning channel by using the up/down button(5, 6) except the setting channel in TWO WAY mode.

2) "DLAY ": VOX OFF DELAY TIME set

If voice signal is not transmitted when vox menu in TWO WAY mode is on, The unit is transmitting for setting time(off/1second/2second/3second/4second/5second).

3) "CALL ": CALL beep sound selection

You can select call beep sound out of off/1/2/3/4/5/6/7 by using up/down button(5, 6).

4) "RING": CALL signal selection

"R": Only received call sound.

5) "ROGER": ending sound selection when transmission is ended

This menu decide that the unit transmit ending sound or not when transmission is terminated.

6) "BEEP": key beep selection

This menu decide that beep sound is produced or not when key button is pressed.

7) "QUIET": Quiet selection

It's good that this menu is set "QUIET ON" when you use a earphone.

8) "TOT ": Time Out Timer selection

The unit stops transmission If continuous transmission time is exceed for setting time In this mode. You can select one out of off/30second/60second/180second by using the up/down button(5, 6)

# 9) "NAME ": User name(Unit name) set

It's possible that you change in this menu.

Call beep sound and selective calling is transmitted the other unit.

When you call the other unit (Double pressing the PTT button(8) allows you the selective calling the other unit.)

using letters:  $A\sim Z$ , BLANK, \*, +, -,  $0\sim 9$ , <, >, ?

Press the menu button(2, 3), then "NAME OFF" is displayed on LCD monitor.

Pressing the up/down button(5, 6) allows you to select "NAME ON".

The letter on the extreme left blinks If you press the menu button(3).

Pressing the menu button(2, 3) allows you to move the position of your desired letter.

Pressing the up/down button(5, 6) allows you to change your desired letter.

# **Safety Information**

Your wireless handheld portable transceiver contains a low power transmitter.

When the Push-to Talk(PTT) button is pushed it sends out radio frequency (RF) signals. This device is authorized to operate at a duty factor not to exceed 50%.

In August 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless devices.

# Important Note: To maintain compliance with the FCC's RF

exposure guidelines, hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

If you wear the handset on your body while using the headset accessory, use only the manufacturers supplied belt clip for this product and ensure that the antenna is at least 1 inch(2.5 centimeters) from your body when transmitting.

Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

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 UNDERSIRED OPERATION.