

## **Operating Instructions**

#### PMR1300 80 Channel UHF 2 Way Citizen Band Radio

Keep this user guide for future reference. Always retain your proof of purchase in case warranty service is required. www.oricom.com.au



### **Need Help?**

If you need assistance setting up or using your Oricom product now or in the future, call Oricom Support.

Australia	02 4574 8888 www.oricom.com.au Mon-Fri 8am – 6pm AEST
New Zealand	0800 67 42 66 www.oricom.co.nz Mon-Fri 10am – 8pm NZST

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When a narrowband radio receives a transmission from an older wideband radio the speech may sound loud and distorted – simply adjust your radio volume for the best listening performance. When an older wideband radio receives a signal from a new narrowband radio the speech may sound quieter - simply adjust your radio volume for best listening performance. When operating a narrowband radio or Channel 41 - 80 interference is possible from wideband radios transmitting on high power or on adjacent frequency.

The issues described above **are not a fault of the radio** but a consequence of mixed use of wideband and narrowband radios.



This unit complies with all relevant Australian and New Zealand approval requirements AS/NZS 4365:2011 including radio communications (Electromagnetic Radiation Human Exposure) standard 2003.

## **Safety Information and Warnings**



### Information on Safe Operation

Read This Information Before Using Your Oricom Radio.

The operation of your UHF radio in Australia and New Zealand is subject to conditions in the following licenses:

In Australia, the ACMA Radio communications (Citizen Band Radio Stations) and in New Zealand by MED the General User Radio License for Citizen Band Radio.

#### Radio Antenna

Do not use any radio that has a damaged antenna. If a damaged antenna comes in contact with the skin, a minor burn may result.

Unauthorized antennas, modifications, or attachments could damage the radio and violate compliance. Do NOT change or modify the antenna.

Do NOT hold the antenna when the radio is "IN USE." Holding the antenna reduces range and may cause bodily harm.

# Safety and general use whilst in a vehicle

Check the State and Federal laws and regulations regarding the use of two way radios in the area where you drive, and always obey them.



#### For Vehicles fitted with Air Bags

Do not place your radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to the occupants of the vehicle.

# Read all these Safety Warnings before you install batteries.

- Do not dispose of the batteries in a fire as they may explode.
- Exercise extreme care when handling batteries in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery or conduction material may overheat explode and or cause burns.
- Never replace batteries in a potentially explosive atmosphere (such as where gas is leaking) as contact sparking may occur while installing or removing the batteries and cause a fire or an explosion.
- Do not modify, cut, disassemble, crush, bend, puncture, heat or damage the batteries.

- WARNING • If batteries leak, do not let the battery liquid touch skin or eyes. If this happens, immediately flush the affected areas with water, and seek medical assistance. Released electrolyte is corrosive and may cause damage to the eyes and skin. It may be toxic if swallowed.
  - Do not immerse or expose the batteries to water or other liquids.
  - Never use damaged batteries as they may explode.
  - Remove batteries when they are no longer able to hold a charge and when the equipment will not be used for an extended period of time.
  - Dispose of batteries according to local regulations, never in your household rubbish.

### WARNING:

Risk of explosion if battery is replaced by an incorrect type.

### **Potentially Explosive Atmospheres**

Turn your radio OFF when in any area with a potentially explosive atmosphere. Sparks in such areas could cause an explosion or fire resulting in injury or even death.

# MARNING

**NOTE:** Areas with potentially explosive atmospheres are often, but not always clearly marked. They include fueling areas such as below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

#### **Blasting Caps and Areas**

To avoid possible interference with blasting operations, turn your radio OFF near electrical blasting caps or in a "blasting area" or in areas posted: "Turn off the two way radio." Obey all signs and instructions.

#### **Exposure to Radio Frequency Energy**

Your Oricom two-way radio complies with Australian Communications Authority Radio communications (Electromagnetic Radiation-Human Exposure) Standard, 2003.

To assure optimal radio performance and make sure human exposure to radio frequency electromagnetic energy is within the guidelines set out in the above standards always adhere to the following procedures.



### **Transmit and Receive Procedure**

Your two-way radio contains a transmitter and a receiver. To control your exposure and ensure compliance with the general population/uncontrolled environment exposure limits, always adhere to the following procedure:

- Transmit no more than 50% of the time.
- To receive calls, release the PTT button.
- To transmit (talk), press the Push to Talk (PTT) button.

Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy exposure only when transmitting (in terms of measuring standards compliance).

Always hold the radio approximately 5cm in front of your mouth with the antenna pointing away from your head.

### **Radio Operation and EME Exposure**

Unauthorized antennas, modifications, or attachments could damage the radio and violate compliance.

Do NOT hold the antenna when the radio is "IN USE." Holding the antenna reduces the effective range.

Do not use the radio if the antenna is damaged. If a damaged antenna makes contact with your skin, a minor burn can result. M WARNING If you wear a radio on your body when transmitting, always fit the radio on the belt clip (supplied). Always ensure the radio and it's antenna are at least 5cm from your body when transmitting.

#### Electromagnetic Interference/ Compatibility

Nearly every electronic device is susceptible to electromagnetic interference (EMI). To avoid the possibility of electromagnetic interference and/or compatibility conflicts, turn off your radio in any location where posted notices instruct you to do so such as health care facilities.

### Aircraft

When instructed to do so, turn off your radio when onboard an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

#### Medical Devices - Pacemakers

The Advanced Medical Technology Association recommends that a minimum separation of 6 inches (15cm) be maintained between a handheld wireless radio and a pacemaker. These recommendations are consistent with the independent research by and recommendations of the U.S. Food and Drug Administration.



People with pacemakers should:

- ALWAYS keep the radio more than 15cm from their pacemaker when the radio is turned ON.
- Not carry the radio in the breast pocket.
- Use the ear opposite the pacemaker to minimize the potential for interference.
- Turn the radio OFF immediately if there is any reason to suspect that interference is taking place.

### **Medical Devices - Hearing Aids**

Some radios may interfere with some hearing aids.

In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

#### **Other Medical Devices**

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

#### **General warnings**

Never use your radio outdoors during a thunderstorm.

Keep the radio out of reach of babies and young children.

## 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 back.

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

## Installing Batteries

Lift the battery cover lock to open it. Then remove the battery cover.

Install the rechargeable batteries by following the orientation as shown in Figure 3. Replace the Battery compartment cover and lock it correctly.





Figure 1

Figure 2



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 **me**" icon is low, you need to charge the battery with the included AC/DC adaptor.

## CHARGING WITH AC Adaptor

Charging directly with AC adaptor, please make sure the radio is off before charging.

Plug the adaptor into the wall socket and the other end into the radio earphone / charging jack.

The LCD I con will flash. Note: If you forget to turn off the radio, the radio will automatically turn off during charging. After charging, you must turn it off again and wait few seconds then turn it on.

2 radios can be charged at the same time.

Charge time for a full charge requires about  $8 \sim 10$  hours.

After charging, unplug the adaptor from the socket.



Figure 4

## WARNING

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

## **Transmitting Range**

The talk range depends on the environment and terrain. In general the radio can reach further in wide open spaces, without obstructions such as hills or buildings. Range is affected by concrete structures, heavy foliage and by operating radios indoors or in vehicles. Don't try to use two radio units which are less than 1.5m (5 feet) apart. Otherwise, you may experience interference.



Optimal Range Outdoors Flat, open areas



Medium Range Outdoors Buildings or trees Also near residential buildings



Minimal Range Outdoors Dense foliage or mountains. Also inside some buildings

PMR1300 Pack Contents:

- 2 x PMR1300 UHF CB Radios
- 1 x AC Adaptor
- 8 x AAA 600mA Ni-MH Rechargeable Batteries
- 2 x Belt Clips

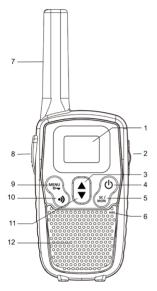
## **Oricom PMR1300 Accessories**

The following Oricom PMR1300 accessories can be purchased directly from Oricom. Visit www.oricom.com.au or call (02) 4574 8888.

Part No.	Description
2U0181	Batteries
2U0200	AC Adaptor twin cable
2U0199	Belt clip
2U0179	Ear bud MIC
2U0175	Speaker MIC
2U0178	Car charger

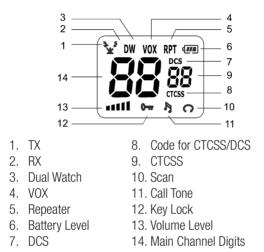
### FOR A FULL LIST OF CURRENT PARTS AND ACCESSORIES VISIT www.oricom.com.au

## Oricom PMR1300 2-Way CB Radio



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

## LCD DISPLAY ICONS



## Operation

## **POWER ON/OFF**

### To Power ON;

To power On the radio, press Power On/Off Key  $\mbox{$\sc b$}$  for 2 seconds until a beep is heard and the LCD display turns on.

### To Power OFF;

To power Off the radio, press Power On/Off key  ${\scriptstyle \textcircled{O}}$  for 2 seconds until LCD display turns off.

## Adjust Volume Level (6 levels)

Press the Up key  $\blacktriangle$  to increase the volume.

Press the Down key  $\mathbf{\nabla}$  to decrease the volume.

## **Changing Channels**

To select the main channel

Press the MENU key once, Main channel number displayed will flash.

Press  $\blacktriangle$  or  $\blacktriangledown$  key to select your desired main channel number.

Press the PTT key to confirm and quit or press MENU to continue next function setting. LCD will display the channel frequency.

Press the PTT key to confirm and quit or press MENU to continue to the next function setting.

You have 10 seconds to decide before auto-reverting back to the main screen.

## Key Lock

Press and hold  $\bullet$  key for 3 seconds, LCD display  $\bullet$  icon.

All keys are locked except PTT and r key.

To unlock, press and hold **-** key for 3 second again.

## **Scanning Channels**

Press the SC/MON key once and LCD will display o 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. *Note: Please aware that the scanning will stop at those channels with the same CTCSS / DCS as your radio setting only.* 

Press  $\blacktriangle$  or  $\checkmark$  key to continue scanning. Or if you want to use this channel, press PTT to confirm and your radio will stay on this channel. If there is no signal, it will continue to scan. Press SCAN key or PTT to exit Scan function and return to preset Channel.

### Monitor

Press and hold SC/MON key to break the squelch noise and open (un-squelch) the frequency for monitor function. Release the SC/MON key to stop.

## **Transmitting and Receiving**

The radio has 75 main frequencies and 38 CTCSS codes or 83 DCS codes. You can communicate with any other user who is using the same combinations, providing they are within range.

To transmit, press & hold the PTT key, LCD displays **\*** 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.

The radio will automatically sound the received signal from the other radio on the same channel, the LCD will display the receive icon  $\mathbf{x}^{t}$ .

The transmission is SIMPLEX "one way at-a-time." While you are speaking, you can not receive a transmission.

Adjust volume control if necessary.

## **RPT ON/OFF information**

If a Repeater channel is selected, press MENU key once, then use  $\blacktriangle$  or  $\checkmark$  button to turn on or off. PLEASE NOTE: if the selected channel is not a repeater channel, this feature is not available and all other menu features will require 1 button push less to select that feature.

## **CTCSS/DCS Sub-code Function**

This function can help you to 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 UHF CB radios can listen to all communications on the same channel when using the default standard setting with CTCSS/DCS = 0 (OFF).

## **CTCSS** Code

Press Menu key MENU twice, the current CTCSS sub-channel number flashes on the LCD Screen. Press the  $\blacktriangle$  or  $\checkmark$  button to select one of the 38 CTCSS sub-channels.

Press the PTT key to confirm and quit or press MENU to continue next function setting.

## DCS Code

Each channel also has 83 digital codes to let you set up group of users for more private communication. Press Menu key MENU 3 times, the DCS code will flash on the LCD Screen.

Press the  $\blacktriangle$  or  $\blacktriangledown$  button to select the desired DCS code.

Press the PTT key to confirm and quit or press MENU to continue next function setting.

### IMPORTANT

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

## 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 MENU key 4 times, The  $\ensuremath{\textbf{CH}}$  icon will start flashing.

Press  $\blacktriangle$  or  $\checkmark$  key to select the dual watch channel (1-80, except the current channel), LCD will display OF if DW is turned OFF.

When DW is on, LCD will display **DW** icon.

Press the PTT key to confirm and quit or press MENU to continue next function setting.

## 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.

The level of VOX sensitivity is shown by a number on the LCD Screen. At the highest level, the units will pick up softer noise (including background noise); and the lowest level, will pick up only loud noise.

Press the MENU key 5 times, LCD will display **vox** icon and VOX sensitivity digit will flash.

Press  $\blacktriangle$  or  $\lor$  key to select sensitivity level "OF, 1, 2, 3" for "OFF, Low, Medium and High respectively. After turning on the VOX function, LCD will display **vox** icon.

Press the PTT key to confirm and quit or press MENU to continue next function setting.

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

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

## Call Tone

You can use 1 of 10 different "Call Tones" to get attention of other user on the same channel. Press the  $\neg$  key, while your call tone is transmitted. The tone will sound, LCD will display the transmit  $\checkmark$  and  $\neg$  icons.

### To select a call tone

Press the MENU key 6 times, LCD displays r icon and call tone number will flash.

Press  $\blacktriangle$  or  $\checkmark$  key to select your desired call tone. Press the PTT key to confirm and quit or press MENU to continue next function setting.

## Key Tone

This feature allows the radio to emit a confirmation tone after pressing each button. Press MENU key 7 times, LCD displays "t o". Press  $\blacktriangle$  or  $\checkmark$  key to select the Key Tone On/Off. Press PTT to confirm and quit or press MENU to continue next function setting.

### Roger Beep

The Roger Beep is a tone which is automatically transmitted whenever the PTT button is released. Press MENU key 8 times, LCD display "r o". Press  $\blacktriangle$  or  $\blacktriangledown$  key to select the Roger beep On/Off. Press PTT to confirm and quit or press MENU to continue next function setting.

### Reset the unit

Turn off the radio.

Press and hold the PTT and Scan key. Turn on the radio.

### 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.

## **Duplex operation via Repeaters**

This feature allows you to use local repeater stations that are designed to automatically re-transmit your broadcast over a large area thus giving you increased range.

Repeater stations are privately operated radio systems installed throughout Australia.

For example, if you wish to access a repeater station in your area which operates on channel 2, you need to set the Duplex access on this Channel.

When you have turned on the Duplex setting in the menu for the selected channel (and you are within range of a local repeater), your radio will automatically transmit to the repeater on channel 32.

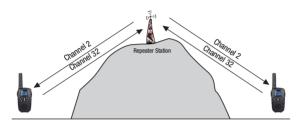
Turning on/off Duplex on channels

- a. Select the required channel to suit the repeater station you wish to access (Channels  $1 \sim 8$  and  $41 \sim 48$ )
- b. Press the MENU key once, "RPT" icon will display.
- c. Press the Up or Down key to set the Repeater function to ON or OFF.
- d. Press the PTT key to confirm your setting.
- e. The RPT icon will display to indicate that Repeater function is set on that channel.

## Operation

Receive Channel								8
Transmit channel	31	32	33	34	35*	36	37	38
Receive Channel	41	42	43	44	45	46	47	48
Transmit channel								

\* Channel 5 is emergency channel only



### **Channel Frequency Table**

# Radiocommunications (Citizen Band Radio Stations) Class Licence 2002

No licence is required to own or operate this radio in Australia and New Zealand. The Radiocommunications (Citizen Band Radio Stations) Class Licence 2002 contains the technical parameters, operating requirements, conditions of licence and relevant standards for Citizen Band (CB) radios. CB radios must comply with the class licence for their use to be authorised under the class licence.

### UHF channels and frequencies

IMPORTANT NOTE: The operation of your UHF radio in Australia and New Zealand is subject to conditions in the following licenses:

In Australia the ACMA Radio communications (Citizen Band Radio Stations) and in New Zealand by MED the General User Radio License for Citizen Band Radio.

## Channel Frequency Table

		Tx	Rx			Tx	Rx
Channel		Freq	Freq			Freq	Freq
	inci	MHZ	MHz	Children		MHz	MHz
01*		476.4250	476 4250	21	1	476.9250	476.9250
01	41*	-	476.4375		611	-	
02*		476.4500	476.4500	22†		476.9500	476.9500
	42*	-	476 4625		621	_	_
03*		476.4750	476.4750	23†		476.9750	476.9750
	43*	-	476.4875		63‡	-	_
04*		476.5000	476.5000	24		477.0000	477.0000
	44*	-	476.5125		64	477.0125	477.0125
05*		476.5250	476.5250	25		477.0250	477.0250
	45*	-	476.5375		65	477.0375	477.0375
06*		476.5500	476.5500	26		477.0500	477.0500
	46*	-	476.5625		66	477.0625	477.0625
07*		476.5750	476.5750	27		477.0750	477.0750
	47*	-	476.5875		67	477.0875	477.0875
08*		476.6000	476.6000	28		477.1000	477.1000
	48*	-	476.6125		68	477.1125	477.1125
9		476.6250	476.6250	29		477.1250	477.1250
	49	476.6375	476.6375		69	477.1375	477.1375
10		476.6500	476.6500	30		477.1500	477.1500
	50	476.6625	476.6625		70	477.1625	477.1625
11		476.6750	476.6750	31*		477.1750	477.1750
	51	476.6875	476.6875		71*	477.1875	
12	51	476.7000	476.7000	32*	/1*	477.2000	477.2000
12	52	476.7125	476.7125	32.	72*	477.2125	477.2000
13	52	476.7250	476.7250	33*	12	477.2250	477.2250
15	53	476.7375	476.7230	33*	73*	477.2250	4//.2230
14	55	476.7500	476.7500	34*	15	477.2500	477.2500
14	54	476.7625	476.7625	54	74*	477.2625	477.2500
15		476 7750	476 7750	35*	/4.	477 2750	477.2750
15	55	476.7875	476.7875	35.	75*	477.2875	4//.2/50
16	55	476.8000	476.8000	36*	15	477.3000	477.3000
10	56	476.8125	476.8125	30.	76*	477.3125	477.3000
17	50	476.8250	476.8250	37*	70	477.3250	477.3250
.,	57	476.8375	476.8375	57	77*	477.3375	111.5250
18	57	476.8500	476.8500	38*	11.	477.3500	477.3500
	58	476.8625	476.8625	50	78*	477.3625	-
19		476.8750	476.8750	39		477.3750	477.3750
- <i>~</i>	59	476.8875	476.8875		79	477.3875	477.3875
20	• /	476.9000	476.9000	40		477.4000	477.4000
<u> </u>	60	476.9125	476.9125	-	80	477.4125	477.4125
	60	4/6.9125	476.9125		80	477.4125	477.4125

- \* The primary use for these channels is repeater operation using 750 kHz offset. Channels 1-8 and 41-48 inclusive are used for mobile reception and channels 31-38 and 71-78 for mobile transmission. In addition, any designated repeater channel may be used for simplex operation in areas where it is not used for repeater operation.
- + Speech telephony shall be inhibited on these channels.
- ‡At the time of production, Channels 61, 62 and 63 are guard channels and are not available for use.

Channel 5 and 35 (paired for Duplex repeaters) are reserved as emergency channels and should be used only in an emergency.

CTCSS and DCS will not operate on channels 5 and 35.

A list of currently authorised channels can be obtained from the ACMA website in Australia and the MED website in New Zealand. Channel 11 is a calling channel generally used to call others and channel 40 is the customary road vehicle channel.

Once contact is established on the calling channel, both stations should move to another unused "SIMPLEX" channel to allow others to use the calling channel.

Channels 22 and 23 are for Telemetry and Telecommand use, voice communications are not allowed on these channels by law.

Channel 9 and above are the best choices for general use in Simplex mode.

## **TROUBLE SHOOTING GUIDE**

PROBLEM	GUIDE
No power or radio switches off after a short time	<ol> <li>Check charger and batteries are installed correctly.</li> <li>Clean battery contacts (Important!).</li> <li>Replace batteries with fully charged or new batteries.</li> <li>Battery capacity poor: battery defective or at end of life, replace batteries.</li> </ol>
I cannot communicate with other group members	<ol> <li>Verify, that the channel frequency and the CTCSS settings are the same on all radios.</li> <li>The other group members are not within radio coverage.</li> </ol>
Audio cutting in and out at receivers end.	1: Too weak signal-too far away. 2: External mic defective? Please contact Oricom Support.
Too many transmissions heard on my channel.	1: Another group is using the same channel number -change channel