



# **Operating Instructions**

# ULTRA550 Waterproof 80 Channel UHF Citizen Band Radio

Keep this user guide for future reference. Always retain your proof of purchase in case of warranty service. www.oricom.com.au 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 Equipment (General) Rules 2021, EN62209-1, EN62209-2

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# **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 674 266 www.oricom.co.nz Mon-Fri 10am – 8pm NZST

# Lithium-ion Battery Pack Warning

- This equipment contains a Lithium-ion Battery pack.
- Do not short circuit the Battery pack.
- Do not charge the Lithium-ion Battery pack used in this equipment in any other charger.
- Lithium-ion Batteries must be disposed of properly.
- The Lithium-ion Battery pack contained in this equipment may explode if disposed of in a fire.
- Lithium-ion Batteries should not be exposed to high temperature environments as they may not operate correctly in these conditions.
- Always keep out of direct sunlight in confined environments.

# 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.

WARNING 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.

### **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.

**NOTE:** Areas with potentially explosive atmospheres are often, but not always, clearly marked. They include fuelling 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 powder 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 in a "blasting area" or in areas posted: "Turn off two way radios".

Obey all signs and instructions.

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

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



To ensure optimal radio performance and to 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 procedures:

- 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.

If you wear a radio on your body when transmitting, always fit the radio on the belt clip (supplied). Always ensure the radio and its antenna is 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 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.

## **General warnings**

Never use your radio outdoors during a thunderstorm. Keep the radio out of reach of babies and your children.

# Introduction

Thank you for choosing the Oricom ULTRA550 5 Watt Handheld Radio.

#### Water & Dust Proof IP67:

The ULTRA550 meets IP67 standard. This provides protection against dust and is capable of withstanding water immersion of up to 1m for 30 minutes. (To meet the IP67 waterproof rating, the accessory socket cover must be in place and the antenna and battery must be fitted correctly).

**NOTE:** DO NOT submerge the transceiver in water if there is any reason to suspect the waterproof protection may not be effective. For example, in cases where the battery cover or external jack cap rubber seal is detached from the transceiver or damaged, the transceiver/ battery cover/jack cap is cracked or broken, or the transceiver has been dropped.

#### **Key Features**

- 5/1 watt switchable TX power
- · Waterproof (meets IP67 dust/waterproof specifications)
- Long life batteries : Lithum-Ion rechargeable 2600mAh
- Fast charger POD supplied with 230V and 12V adaptors
- 3 Programmable instant channel buttons
- · Die cast metal chassis
- 80 Narrowband channels
- · Channel scan (Open/Priority)
- Duplex
- Backlit LCD display
- Signal monitoring
- 38 CTCSS & 104 DCS Privacy codes
- Keypad lock
- · Calling 5 tone
- Roger Beep
- · Priority channel

- 5 different Scrambler functions
- Triple watch
- VOX function
- Squelch tail on/off
- · Busy channel lockout function
- Key beep
- · Memory channel On/Off
- · Auto power save mode
- · Battery indicator
- · Low battery alert function
- Removable flexible antenna
- 2.5mm jack for optional headset or speaker mic

## **Customized multi menu function**

- 1. TX power HI(5W)/LO(1W)
- 2. Digital Squelch setting (Auto, 1 to 5 levels)
- 3. User selectable 38 CTCSS and 104 DCS codes
- 4. Scrambler setting (Off, 1 to 5 different frequencies)
- 5. Duplex On/Off
- 6. VOX sensitivity (Off, 1 to 3 levels)
- 7. Priority channel memory
- 8. Scan mode (Open or Group scan)
- 9. Busy channel lockout (On or Off)
- 10. 5 Selectable call tones (Off, 1 to 5 melody)
- 11. Key beep tone (On or Off)
- 12. Roger beep tone (On or Off)
- 13. Triple watch sub channel 1 setting
- 14. Triple watch sub channel 2 setting
- 15. Memory channel (On or Off)
- 16. Squelch tail (On or Off)

# Pack Contents

The following items are included in your ULTRA550 single pack. If you have purchased a twin pack, you will have two items of each.



#### **Oricom ULTRA550 Accessories**

The following Oricom ULTRA550 accessories can be purchased directly from Oricom. Visit www.oricom.com.au or call or (02) 4574 8888.

	Model No.	Description
0	THMIC5000	Throat microphone with voice tube for noisy environments.
Ø	SPKMIC5000	Heavy duty IP54 speaker microphone
S	EARSET5000	Earbud with 3.5mm jack suits SPKMIC5000 or any radio with 3.5mm jack
<b>O</b>	EBVOX5000	Small compact speaker with in-line mic
	2U0003	SMA to FME Adaptor to connect ULTRA550 to an external antenna via an FME connector.

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

Installation

## The Antenna

Attach the antenna to the ULTRA550 radio (see diagram).

Be sure the antenna is firmly secured.

#### **The Battery Pack**

Install Battery Pack - Place the battery pack onto the back of the radio. Position four tabs into slots and slide battery into position until you hear a click (see diagram).

Remove Battery Pack - Push battery catch in direction of arrow and then slide the battery off.

#### The Charger Pod

When the battery pack is new, it should be fully charged before being used for the first time.

If left unused, your transceiver's battery pack will discharge itself within a few months.

If you have not used your ULTRA550 for some time, you will need to recharge the battery pack before use.

Warning: Use only the supplied charger pod. The use of other types may be dangerous and will void your warranty.

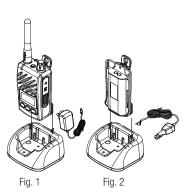




## Charging the Radio

Connect the socket of the wall adaptor to a mains power outlet and insert the jack of the wall adaptor into the desktop charger plug (see Fig. 1). It takes approximately 3 hours to fully recharge.

Place your transceiver into the cradle of the desktop charger. The RED LED on the charger will light up.



When charging is complete, take the transceiver out of the cradle and detach the socket of the wall adaptor from the mains.

The red LED on the mains charger pod will change to green when charging is complete. It will take approximately 3 hours to fully charge the battery with the radio turned off.

You can also charge the radio using a 12V adaptor supplied. Plug the adaptor into the 12V outlet in your car and insert jack into the desktop charger (see Fig. 2).

# Do not transmit when the ULTRA550 is in the charger pod.

#### The Belt Clip

- 1. Place the belt clip into the slot on the back of the radio.
- 2. Then slide it down.
- 3. You will hear a click. The belt clip is firmly installed.



# The Speaker Mic (accessory)

To connect the speaker mic, fit the plug into the socket and tighten the retaining screw (finger tight only).

**NOTE:** When accessories are fitted, the IP rating may be compromised.



## **Basic Control**



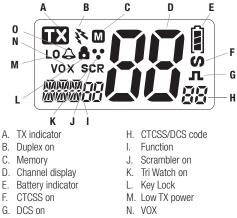
- 1. Antenna connector
- 2. Instant channel memory recall and write
- 3. Power On/Off and volume adjust
- 4. Belt Clip
- 5. Push to talk (PTT)/Melody call
- 6. Monitor On/Triple Watch
- 7. External speaker & Microphone jack
- 8. RX/TX LED indicator
- 9. LCD
- 10. Microphone
- 11. Channel down
- 12. Scan/Menu
- 13. Channel up







# LCD Display



#### 0. Roger Beep on

#### **Battery Level Display**

The battery icon in the top right hand corner of the LCD shows the current battery level at all times.

The battery level is displayed in 4 levels as below.



Battery 100% fully charged



Battery approx 70%

Eattery approx 30%



Low battery with alert beep tone

Battery life: Typically 15 Hours (This is based on the following duty cycle TX 5%/RX 5%/Stand by 90%)

# When(PTT) is pressed at low battery, an error tone sounds and transmission is disabled.

#### Once at low battery the unit will automatically shutdown.

Recharge the battery at any time. When the battery is empty, it will take approximately 3 hours to fully charge.

#### Power On/Off

To turn on the transceiver, turn the volume knob clockwise until you hear a click.

To turn off the transceiver, turn the volume knob fully counter-clockwise.

#### Volume

Rotate the Volume knob until you reach the desired level.

#### **Channel Selection**

Press the channel up or down buttons until you select the desired channel.

#### Transmission and Reception

To transmit, keep the PTT button firmly pressed and the red LED will illuminate.

Wait for approximately 1 second and then speak in the direction of the microphone, and hold the device at a distance of about 5cm from your mouth.

When you have finished, release the PTT.

When the radio is in reception mode, you will automatically receive communications and the green LED will illuminate.

#### MON (Monitor) Function

The Monitor button is used for temporarily opening the squelch, in order to listen to signals that are too weak to keep the squelch permanently opened.

For brief listening, press Monitor briefly to turn Squelch off, press briefly again to turn Squelch back on.

## **Triple Watch Function**

Pressing and holding the monitor button activates the Triple watch function. The Triple Watch feature allows for monitoring of 2 or 3 channels, including the currently selected channel and the channels stored in TRI 1 and TRI 2.

In order to store these channels, they are set on the radio in the same way you would set normal channels with any additional features set (CTCSS/DCS/Duplex). This channel is then selected in TRI 1 or TRI 2 via the menu function. If only one additional channel is required then select "off" in TRI 2.

Once Watch is activated, by pressing and holding the Monitor button, the TRI 1 and TRI 2 channels are checked in the following sequence:

Main channel is checked for 0.7 of a second, then TRI 1 for 0.15 seconds, TRI 2 for 0.15 seconds and then back to the Main channel. The sequence is repeated until turned off, or until a signal is detected.

If there is a signal present on TRI 1 or TRI 2, the radio will wait on that channel. For 5 seconds after the signal is no longer present, the user can push and hold the monitor button to activate that as the normal channel, otherwise the Watch will continue in its normal sequence.

Watch can be disabled by pushing and holding the monitor button.

#### Instant channel

The Transceiver has 3 instant channel recall and memory function.

#### Instant recall

1. Press the Instant button, The letters "MR INST" will appear on the LCD. The 3 instant channels are pre programmed as below.

Button	▼	SC MENU	
Default CH	40	20	1

2. You can recall each instant channel by pressing one of the buttons after recall mode.

If you want to escape from this function, press INS button or press  $\ensuremath{\mathsf{PTT}}$  .

### Instant Channel memory change

To change the pre programmed INS CH

- 1. Select the required channel.
- 2. Press and hold the instant button until "MW INST" appears on the LCD.
- Press the INS CH button that you want to change and the new channel information will be saved.

#### Instant Channel scanning

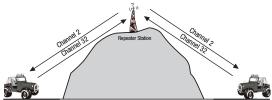
- 1. Press SCAN button to start scanning.
- 2. Press and hold 2 seconds scan button again. Then scanning will be changed to 3 INS CH scanning mode.
- 3. When you want to stop scanning, you can press the SCAN button or push the PTT button.

#### Duplex

Duplex can be turned off and on for each channel in Menu mode. The Display shows DPX only available on channels (1-8) and (41-48).

#### General

Your radio has a Repeater Access function to allow use of local repeater stations (if available in your area). Repeaters are a shared radio system installed by interested parties (clubs,local businesses etc.) that pick transmissions on specific channels and re-transmit (or repeat) the received signal to another channel.



The Repeater Access function can be set (from channel 1 to 8 and 41 - 48) used by local repeater stations. When activated, your radio will receive the Repeater on its specific channel (all repeater output are

on channel 1 to 8 and 41-48) but transmit to the repeater channel 31 through 38 and 71 to 78.

e.g

CH01 on Duplex mode will receive on CH01 but transmit on CH31.

CH02 on duplex mode will receive on CH02 but transmit on CH32.

If you transmit on CH01 duplex mode, you are actually transmitting on CH31.

The repeater station down converts your signal and retransmits on CH01.

Your ULTRA550 allows you to pre-select Duplex operation individually on each channel.

CH and number	Simplex mode Transmit/ Receiver	Duplex Mode Transmit/ Receiver
	Frequency (MHz)	Frequency (MHz)
1	476.425	477.175 CH31
2	476.450	477.200 CH32
3	476.475	477.225 CH33
4	476.500	477.250 CH34
5	476.525	477.275 CH35
6	476.550	477.300 CH36
7	476.575	477.325 CH37
8	476.600	477.350 CH38
41	476.4375	477.1875 CH71
42	476.4625	477.2125 CH72
43	476.4875	477.2375 CH73
44	476.5125	477.2625 CH74
45	476.5375	477.2875 CH75
46	476.5625	477.3125 CH76
47	476.5875	477.3375 CH77
48	476.6125	477.3625 CH78

#### CTCSS/DCS

To activate CTCSS or DCS, please select the required tone in menu mode as this will activate CTCSS or DCS on the current channel only. To turn CTCSS or DCS off on the current channel, select "off" in menu mode.

The Display shows 🕜 or 🖪 when on.

#### Menu Function

The Menu function provides a convenient method of customizing some of the radio's functions.

The following Menu Options are available.

Note that some items are only available on certain channels.

To access the Menu functions:

- 1. Press and hold the Menu button, the first menu function is displayed.
- Briefly press the menu button to cycle through each available function. After the last function has been selected, the cycle returns to the beginning.
- 3. Use the channel up or down buttons to change the parameters of the selected function.
- 4. To exit the menu, press PTT button or press and hold the menu button for 2 seconds.

The following features can be selected by using the "MENU" button:

- 1. TX power HI(5W)/LO(1W)
- 2. Digital Squelch setting (Auto, 1 to 5 levels)
- 3. User selectable 38 CTCSS and 104 DCS codes
- 4. Scrambler setting (Off, 1 to 5 different frequencies)
- 5. Duplex On/Off
- 6. VOX sensitivity (Off, 1 to 3 levels)
- 7. Priority channel memory
- 8. Scan mode (Open or Group scan)
- 9. Busy channel lockout (On or Off)
- 10. 5 Selectable call tones (Off, 1 to 5 melody)
- 11. Key beep tone (On or Off)
- 12. Roger beep tone (On or Off)
- 13. Triple watch sub channel 1 setting
- 14. Triple watch sub channel 2 setting
- 15. Memory channel (On or Off)
- 16. Squelch tail (On or Off)

\* Please see below menu modes.

Control	Functions	Step	Display	Default
	TX Power	High or Low	THP H I	High
	SQ level	Auto or 1 to 5	s. At	Auto
	CTCSS or DCS	TSQ38 or DCS104	759 C.of	Off
MENU	Scrambler	Off or 1 to 5	ar of	Off
IVILINO	Duplex	On or Off	rof	On
	VOX	Off or 1 to 3	w of	Off
	Priority Channel	On or Off	PRI Û Û	11
	Scan mode	OS or GS	s on	0S
	Busy channel lockout	On or Off	n OF	Off
	5 Selectable call tone	Off or 1 to 5	MB. OF	Off
	Key beep tone	On or Off	r of	Off
	Roger beep tone	On or Off	ra OF	Off
MENU	Triple watch CH1	One CH memory	r: OF	Off
	Triple watch CH2	One CH memory	THE OF	Off
	Memory On/Off	On or Off	MEH QUI	On
	Squelch tail	On or Off	su of	Off
	Version	None		01

### Squelch Level

The radio has 6 preset (Auto, 1 to 5) squelch levels:

Off - SQ off (monitor on condition)

Auto : Automatic level squelch (-120 to -124dBm)

1 - Maximum sensitivity (minimum squelch)

5- Minimum sensitivity (Maximum/tight squelch)

# **CTCSS and DCS Setting**

This feature allows you to receive signals only from callers who have selected the same CTCSS and DCS code.

DCS is similar to CTCSS. It provides 104 extra, digital squelch codes that follow after the 38 CTCSS codes. CTCSS 1-38, followed by DCS 1-104, displayed as 1 to A4.

#### Scanning

The ULTRA550 has two types of scanning: Open scanning (OS) and Priority scanning (GS).

Scanning allows you to search for active channels programmed in the memory.

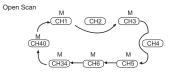
You can choose Scan type in menu mode.

To initiate scanning:

Press menu key and scanning starts. OS icon appears during scanning.

## Open Scan (OS) Mode

The Open Scan feature scans for activity on all CB channels in memory. Once a channel is located, scanning will pause, this will allow the signal to be heard.

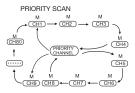


## Priority Scan (GS) Mode

With Priority Scan, the Radio scans for activity, but in addition, it also inserts your Priority Channel into the scan sequence.

This means that your Priority Channel will be monitored regularly while scanning to ensure that no calls are missed. Any signal received on your Priority Channel will take precedence over any signals received on the other channels.

The priority channel will be checked after every 4th channel scanned.



#### **Transmit RF Power Control**

The maximum RF transmit power of ULTRA550 is 5 watts.

To switch to low power, select low power in menu mode. Low indicator will appear in the display.

#### VOX Sensitivity Level Setting

In VOX mode, the radio will transmit a signal only when it is activated by your voice or other sound around you. The unit will transmit for a short time (approximately 2 seconds) after you have stopped talking.

The level of VOX sensitivity is shown by a number on the LCD screen (Off to 3 levels).

At the highest level (1), the unit will pick up softer noise (including background noise). At the lowest level (3), it will pick up only loud noise.

VOX operation is not recommended if the radio will be used in a noisy or windy environment. A VOX headset is also available, this can be purchased from your re-seller or online at www.oricom.com.au.

#### **Priority Channel Set**

To store a Priority Channel, select the required channel in menu mode. The letter "PRI" will appear when the selected channel is set to Priority. This Channel will then be automatically monitored during the Priority Scan.

NOTE: You can only store one channel as your priority channel.

#### **Duplex**

Duplex mode can be turned on or off on the duplex channels. When turned on, the transmit channel will be as shown in the table on page 18.

#### Кеу Веер

The Beep tone emits a tone when you press any of the buttons on the microphone (except PTT button).

#### **Roger Beep**

This function emits a beep on the communication party to inform that the transmission is finished.

#### **Busy Channel Lock**

If the channel is already in use, you can prevent the UHF CB radio from transmitting. This is particularly important when using CTCSS/ DCS.

#### Squelch Tail

Squelch Tail is the noise heard after the transmitting party releases PTT and is heard by the receiving party.

If Squelch Tail is turned ON, on both radios this squelch noise will be muted.

### Memory On/Off

The factory has pre-programmed all the UHF CB channels into the Open SCAN channel memory.

However, you can change or customize the channels by this menu.

To remove the channel from memory, press up or down in this menu.

The memory icon "M" disappears.

#### **5 Selectable Call Tones**

You can select from 5 call tones. This is the tone that is emitted when the PTT is pushed 2 times within 1/2 a second.

Current regulations require calling tones to be restricted to one transmission per minute. If a second transmission is attempted within one minute, then an error tone will sound.

#### Scramble

Scramble enables private communications by scrambling the voice signal.

This prevents users without descrambler equipment or a compatible unit, from understanding the conversation.

Select desired channel. SCR appears when scramble setting from off and 1 to 5.

#### Key Lock

To prevent accidental entries, you can lock the keypad.

To enable or disable the "Key lock" Function:

Turn radio off. While holding Menu button turn the Radio on.

When the key lock is active, a warning beep will be heard if you attempt to press keys (except for the PTT button).

#### **Factory Reset**

If the radio's display locks up or stops functioning properly, you might need to reset your UHF radio.

Caution: This procedure clears all the information you have stored in your UHF radio.

Before you reset your UHF radio, try turning it off and on again.

If your UHF radio is still not functioning correctly, you may need to reset the UHF radio.

To reset, Press and Hold Monitor and power on. "Reset" will appear in the display. The radio will then return to standby mode.

#### TOT (Time Out Timer)

Australian and New Zealand standards require that if the PTT is pressed for more than 3 minutes the unit must stop transmitting. The radio is set to stop transmitting after 2 minutes and 30 seconds of continuous transmission. "TOT-on" will appear in the display and it will emit a beep sound to indicate that TOT is activated.

# **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.

# UHF CB Channels and Frequencies

		ТХ	RX	1		ТХ	RX	
Channel		Freq	Frea	Channel		Frea	Freq	
		MHZ	MHz	1		MHZ	MHZ	
01*		476.4250	476.4250	21		476.9250	476.9250	
	41*	-	476,4375	1	61 ±	-	-	
02*		476.4500	476.4500	22†	1	476.9500	476.9500	
	42*	1 -	476.4625		621	- 1	-	
03*		476.4750	476.4750	23†	1	476.9750	476.9750	
	43*	-	476.4875		63‡	-	-	
04*	1	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*	- 1	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*	- 1	476.6125		68	477.1125	477.1125	
09		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	1	70	477.1625	477.1625	
11		476.6750	476.6750	31*		477.1750	477.1750	
	51	476.6875	476.6875	1	71*	477.1875	-	
12		476.7000	476.7000	32*		477.2000	477.2000	
	52	476.7125	476.7125		72*	477.2125	-	
13		476.7250	476.7250	33*		477.2250	477.2250	
	53	476.7375	476.7375		73*	477.2375	-	
14		476.7500	476.7500	34*		477.2500	477.2500	
	54	476.7625	476.7625		74*	477.2625	-	
15		476.7750	476.7750	35*		477.2750	477.2750	
	55	476.7875	476.7875		75*	477.2875	-	
16		476.8000	476.8000	36*		477.3000	477.3000	
	56	476.8125	476.8125		76*	477.3125	-	
17		476.8250	476.8250	37*		477.3250	477.3250	
	57	476.8375	476.8375		77*	477.3375	-	
18		476.8500	476.8500	38*		477.3500	477.3500	
	58	476.8625	476.8625		78*	477.3625	-	
19		476.8750	476.8750	39		477.3750	477.3750	
	59	476.8875	476.8875		79	477.3875	477.3875	
20		476.9000	476.9000	40		477.4000	477.4000	
	60	476.9125	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.

<b>38 CTCSS</b>	CODE LIST
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CODE	Frequency (Hz)	CODE	Frequency (Hz)
OFF	OFF	20	131.8
1	67.0	21	136.5
2	71.9	22	141.3
3	74.4	23	146.2
4	77.0	24	151.4
5	79.7	25	156.7
6	82.5	26	162.2
7	85.4	27	167.9
8	88.5	28	173.8
9	91.5	29	179.9
10	94.8	30	186.2
11	97.4	31	192.8
12	100.0	32	203.5
13	103.5	33	210.7
14	107.2	34	218.1
15	110.9	35	225.7
16	114.8	36	233.6
17	118.8	37	241.8
18	123.0	38	250.3
19	127.3		

# DCS codes table

Code No.	DCS Code (Octal)	Code No.	DCS Code (Octal)	Code No.	DCS Code (Octal)
1	023	36	223	71	445
2	025	37	225	72	446
3	026	38	226	73	452
4	031	39	243	74	454
5	032	40	244	75	455
6	036	41	245	76	462
7	043	42	246	77	464
8	047	43	251	78	465
9	051	44	252	79	466
10	053	45	255	80	503
11	054	46	261	81	506
12	065	47	263	82	516
13	071	48	265	83	523
14	072	49	266	84	526
15	073	50	271	85	532
16	074	51	274	86	546
17	114	52	306	87	565
18	115	53	311	88	606
19	116	54	315	89	612
20	122	55	325	90	624
21	125	56	331	91	627
22	131	57	332	92	601
23	132	58	343	93	632
24	134	59	346	94	654
25	143	60	351	95	662
26	145	61	356	96	664
27	152	62	364	97	703
28	155	63	365	98	712
29	156	64	371	99	723
30	162	65	411	100 (A0)	731
31	165	66	412	101 (A1)	732
32	172	67	413	102 (A2)	734
33	174	68	423	103 (A3)	743
34	205	69	431	104 (A4)	754
35	212	70	432		

# **Express Warranty (Australia)**

This Express Warranty is provided by Oricom International Pty Ltd ABN 46 086 116 369, Unit 1, 4 Sovereign Place, South Windsor NSW 2756, herein after referred to as "Oricom".

Oricom products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Oricom warrants that the product is free from defects in materials or workmanship during the Express Warranty Period. This Express Warranty does not extend to any product from which the serial number has been removed or was purchased outside of Australia.

Nothing in this Express Warranty excludes, restricts or modifies any condition, warranty, guarantee, implied term, right or remedy pursuant to the Australian Consumer Law and which may not be so excluded, restricted or modified. For such conditions, terms, guarantees and warranties that cannot be excluded, restricted or modified, Oricom limits the remedies available to extent permitted in the relevant legislation.

The Express Warranty Period will be 3 years (excluding battery cells and rechargeable battery packs) from the date of purchase of the product evidenced by your dated sales receipt. You are required to provide proof of purchase as a condition of receiving Express Warranty services.

You are entitled to a replacement product or repair of the product at our discretion according to the terms and conditions of this document if your product is found to be faulty within the Express Warranty Period. This Express Warranty extends to the original purchaser only and is not transferable.

Products distributed by Oricom are manufactured using new materials or new and used materials equivalent to new in performance and reliability. Spare parts may be new or equivalent to new. Spare parts are warranted to be free from defects in material or workmanship for thirty (30) days or for the remainder of the Express Warranty Period of the Oricom branded product in which they are installed, whichever is longer. During the Express Warranty Period, Oricom will where possible repair and if not replace the faulty product or part thereof. All component parts removed under this Express Warranty become the property of Oricom. In the unlikely event that your Oricom product has a recurring failure, Oricom may always, subject to the Competition and Consumer Act 2010, at its discretion, elect to provide you with a replacement product of its choosing that is at least equivalent to your product in performance.

No change to the conditions of this Express Warranty is valid unless it is made in writing and signed by an authorised representative of Oricom.

Oricom will not be liable under this Express Warranty, and to the extent permitted by law will not be liable for any defect, loss, damage or injury arising out of or in connection with a:

- Failure by you to adhere to the warnings and follow the instructions set out in this user guide for the proper installation and use of the product;
- 2. Wilful misconduct or deliberate misuse by you of the product;
- Any external cause beyond our control, including but not limited to power failure, lightning or over voltage; or
- Modification to the product or services carried out on the product by anyone other than Oricom or Oricom's authorised service provider.

# How to make a claim under your Express Warranty in Australia

Oricom has a simple warranty process for you to follow:

- Please call or email our Customer Support Team, (02) 4574 8888 or support@oricom.com.au.
- A Customer Support Team member will verify after troubleshooting with you if your product qualifies under warranty. If so, they will give you a Product Return Authorisation number.
- We will then email or fax a Return Authorisation form and a Repair Notice (if necessary), together with instructions on how to return the goods for warranty service.

Please note that if a Customer Support Team member advises that your product does not qualify for return, this warranty does not apply to your product. Products that are authorised to be returned to Oricom in Australia must include all of the following:

- A completed Return Authorisation form
- A copy of your Proof of Purchase (please keep your original copy)
- The faulty product, including all accessories.

Send the approved returns to:

Oricom International Pty Ltd Locked Bag 658 South Windsor NSW 2756 Australia

Please note that this Express Warranty excludes expenses incurred by you in returning any faulty product to us. You must arrange and pay any expenses incurred (including postage, delivery, freight, transportation or insurance of the product) to return the faulty product to us, however, we will arrange delivery of the repaired or replaced faulty product to you.

# **Important Information**

#### **Repair Notice**

Please be aware that the repair of your goods may result in the loss of any user generated data (such as stored telephone numbers, text messages and contact information). Please ensure that you have made a copy of any data saved on your goods before sending for repair. Please also be aware that goods presented for repair may be replaced by refurbished goods or parts of the same type rather than being repaired.

# **ORICOM CUSTOMER SUPPORT**

Oricom have a trained and dedicated team of Customer Support Representatives, each with the knowledge and resources to assist in answering your questions quickly and efficiently.

#### Oricom Support - Australia

For all product enquiries, troubleshooting or to discuss the range of Oricom products, feel free to contact Oricom or visit our website for answers to frequently asked questions.

# (02) 4574 8888

Monday - Friday 8am - 6pm AEST Email: support@oricom.com.au www.oricom.com.au

#### **Oricom Support - New Zealand**

## 0800 674 266

Monday - Friday 11am - 7pm NZST Email: support@oricom.co.nz



Ref:20122022