



Operating Instructions

DTX4000 80 Channel UHF Citizen Band Radio

Keep this user guide for future reference. Always retain your proof of purchase in case of warranty service and register your product on line at:

AUSTRALIA: www.oricom.com.au NEW ZEALAND: www.oricom.co.nz

The ACMA increased the number of available UHF CB channels.

To provide additional channel capacity within the UHF CB Band the ACMA has increased the number of available channels by changing from wideband to narrowband channels and adding the additional channels between the existing 40 channels. Some of the new channels are locked and cannot be used, see channel chart later in this user quide for more information.

When did this take place?

Early in 2011 new AS/NZS Standards came into effect allowing operators to use additional narrowband channels and also use narrowband transmissions on some current wideband channels. This increased the number of channels up to 80, 75 of which are useable voice channels.

What issues may users experience during the transition phase?

When a new 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.

It is expected that as older wideband radios are removed from service that this issue will be resolved. Most radios in use will be narrowband eliminating this issue.

This information is current at time of printing. For further up to date information please visit www.acma.gov.au



This unit complies with all relevant Australian and New Zealand approval requirements AS/NZS 4365:2011



Introduction	4
Important information	5
Installation of your Oricom Radio	6
Controls and Indicators	8
Operations	12
UHF CB channels and frequencies	27
Customer Support	31
Express Warranty (Australia)	32

Need Help?

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

Australia 1300 889 785 or (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

Introduction

Thank you for choosing the Oricom DTX4000 5 watt UHF CB Radio.

Key Features

Dual receive

IP54 dust and splash resistant

12/24 volt operation

3 memory groups of 16 channels per group

Removable and reversible front panel

Multi-colour backlit display

Back light brightness (5 pre-set levels plus auto)

Fast scanning 80 channels within 3 seconds

Rotary volume/channel and squelch control

Duplex

38 CTCSS & 104 DCS codes

Heavy duty diecast metal chassis

Slide-in mounting bracket

Auto power off (off/1h/2h/4h)

3.5mm external jack (for optional external speaker or PA adaptor)

Optional Accessories

Remote head mounting kit

External speaker

PA adaptor jack

PC programming cable and software to allow programming of memory location

Rear Microphone cable

Please read before installing or operating 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.

Safety Information and Warnings



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 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 two way radios." Obey all signs and instructions.

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.



When installing your radio in your vehicle, check that during installation you do not damage any wiring or vehicle components that may be hidden around the mounting position. Ensure the installation does not interfere with the operation of the vehicle and meets all regulatory and safety retirements for accessories fitted to your vehicle.

For optimum performance your radio needs to be installed correctly. If you are unsure about how to install your radio, we suggest you have your radio professionally installed by a UHF specialist or Auto electrician. When installing the radio, avoid mounting it close to heaters or air conditioners. Never press the PTT or CALL button before connecting the antenna to the radio.

Wiring Methods

There are two possible wiring configurations for connecting to the Vehicles power supply.

A. Radio stays ON when the ignition is switched OFF

Connect the radio's negative (black) lead to the vehicle chassis, or directly to the batteries negative terminal.

Connect the radio's positive (red) lead via the 2 Amp fuse to the battery's positive terminal. Alternatively, the positive lead could be connected at the fuse box at a point that has DC Power continuously available (preferably the battery side of the ignition switch) via the 2 Amp fuse.

B. Radio turns OFF with the ignition switch

Connect the radio's negative (black) lead to the vehicle's chassis, or directly to the batteries negative terminal.

The radio's positive (red) lead should connect to an accessory point in the vehicle's fuse box via the 2 Amp fuse.

Antenna information

The antenna (not supplied) is of critical importance, to maximize your output power and receiver senstivity.

A poorly installed, inferior quality antenna or one not designed for the correct frequency band will give poor performance. You should only purchase an antenna designed for the 477MHz frequency band.

Antenna installation

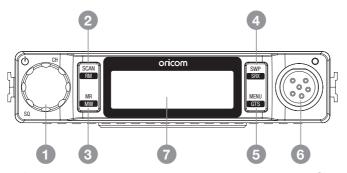
- 1. Connect the antenna to the rear antenna socket using a PL259 coaxial connector (not supplied).
- To obtain maximum performance from the radio, select a high quality antenna and mount it in a good location. Never press the PTT or CALL button before connecting the antenna to the radio.

Optional External Speaker

Depending on the installation it may be necessary to use an external speaker (not supplied) to give improved volume and clarity. This can be plugged into the EXT –SPK socket on the rear of the unit.

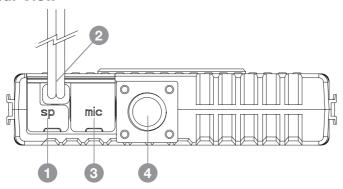
Controls and Indicators

Front View



- Power on/off and Volume/channel/squelch selector and SVL (sub receiver volume)
- 2. Scan (open scan/memory group scan)/scan skip memory
- 3. Memory recall/memory write
- 4. Main & Sub channel swapping/SRX on/off
- 5. Menu/Group tone scan
- 6. Microphone connector
- 7. LCD display

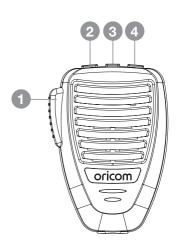
Rear View



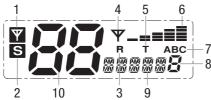
- 1. 3.5mm external jack for optional 8 ohm speaker and PA speaker
- 2. Power supply connection
- 3. Rear microphone jack for Optional extension Microphone cable
- 4. Antenna Connection

Microphone

- 1. Push to talk
- 2. Volume/Channel/SQ/SVL down
- 3. SWP/Mode selector
- 4. Volume/Channel/SQ/SVL up



LCD Icons & Indicators



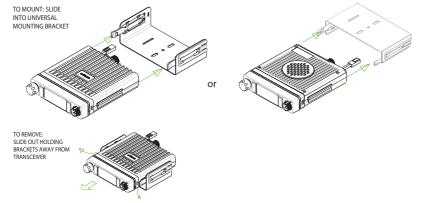
- 1. Sub Receiver Busy
- 2. Sub Receiver On
- 3. Duplex On
- 4. Main Receiver Busy 9. Status display
- CTCSS or DCS On
- 6. Signal strength & TX power & SWR meter
- 7. Group display (A, B, C group)
- 8. Group address channel
- 10. Channel display

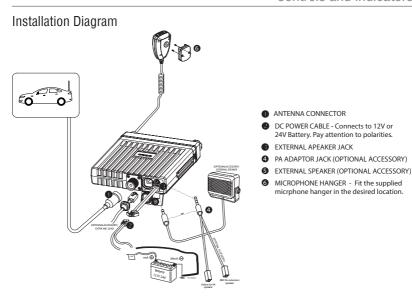
Installation of the DTX4000 and fitting optional accessories

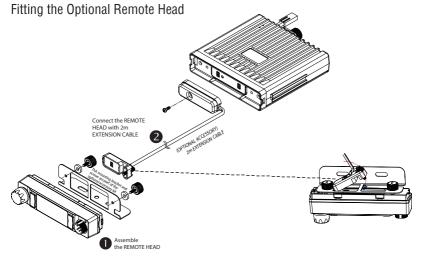
Mounting the Transceiver

The universal mounting bracket supplied with your transceiver allows overhead/dash mounting.

Mount the transceiver via the bracket, securely with the supplied screws, in the desired location, ensuring the surface is sturdy and can support the weight of the radio.







Operations

Turning on the Power

Press and hold the Channel selector.



Setting the Volume

Turn the channel selector clockwise to adjust the sound level for comfortable reception.

On the microphone push the up or down buttons to increase or decrease the volume. If held down the volume will increase or decrease quickly.



Selecting a channel

Press channel selector once. The "CH" appear on the LCD.

Select the channel by rotating the channel selector up or channel down.

On the microphone push the mode button and select the channel by pushing the up or down buttons.



Setting the Squelch Level

- 1. Press channel selector 2 times. The current squelch level is displayed.
- 2. Select the squelch level by rotating the channel selector.
- 1 Max sensitivity (Min. squelch)
- 15 Min. sensitivity (Max/Tight squelch)
- Off Open squelch



Setting SRX (Sub Receiver) Volume

- 1. Press Channel selector 3 times "SVL" is displayed.
- 2. Rotate the Channel selector to adjust the SRX volume.

Note:

* If a button is not pressed within 2 seconds the radio will automatically exit the sub display of "VOL" "CH" "SQL" and "SVL".

PTT (Push-To-Talk) button

Pressing the PTT button activates the transmitter.

The RF (radio frequency) level will appear on the LCD as you are transmitting.

To receive, release the PTT button and then TX will disappear on the display.

When transmitting, hold the Mic two inches from your mouth and speak clearly in a normal voice across the front of the Mic area.

Scanning

The Scan feature allows you to search for active channels automatically.

There are 3 scanning modes;

Open Scan, Group Memory Scan and Group tone Scan (a special case of Group Memory Scan).

Open scan

Press SCAN/RM and scanning starts. The OS-SC sub menu display appears on the LCD.

When a signal is found, scanning will stop at that channel to allow the signal to be heard, then resume scanning when the channel is clear again.

The scan resume time can be set as an optional pause of P8 (default).

ch 1-2-3-4-5-6-7 77-78-79-80

Open Scan, the scan direction cannot be changed by rotation of the channel control or microphone buttons.

To stop the scan press the SCAN/RM button or press the PTT

Remove Memory in Scanning

While the radio stops scanning on a busy channel, press hold SC/RM button for 2 seconds.



Channel will be remove from current scanning. The removed channel will be reinstated after the scan is stopped and restarted.

Scan 1-2-3-4-5-6-7 77-78-79-80

RM Scan 1-3-4-5-6-7 77-78-79-80

Note: Up to 10 channels can be removed for the current scan.

For this example we are removing CH02 during the scan. Because it is only noise.

- 1. Press SC/RM button for 2 seconds.
- 2. Scanning will resume.
- 3. Channel 02 is removed during scan.



Group Memory Scan

Memory scan must be stored to the memory channels in groups A to C. Refer to memory recall function.

- 1. Press MR/MW button to change the setting between A, B, C and blinking A, B, C.
 - When blinking, then all groups will be scanned starting in selected group.
- Press Scan button to start group scan.The MS-SC sub menu display appears on the LCD.
- 3. To stop Group memory Scan, press SCAN/RM button or PTT press.

Group tone Scan

Group tone scan is the default scan mode and is enabled to allow continual communication across congested channels.

Group Tone Scans channel stored into Group memory scan and only opens the squelch for signals with the correct sub code (38 CTCSS or 104 DCS tone).

To achieve this, all radios in your group must have the same channels in A, B, C memory (group memory channels) and use the same Subcode (38 CTCSS and 104 DCS tone).

1. Press hold MENU/GTS button to Group Tone Scan.

All group tone scan stored into Group memory channel and CTCSS 01 (67Hz) is set for Group Tone Scan.

The Group tone code can be change by menu mode.

2. To stop Group memory Scan, Press MENU/GTS button or PTT press.

Memory Recall

This feature allows the user to active the stored channels in the MR button

To access channel in the MR button, simply press the "MR" button, and the "A" will appear at the right side on the LCD. Press memory button you want to access From A to C Group.



Continuous Press MR button will be change to A->B->C->A blinking ->B blinking -> C brining ->A.

If SC/RM button press and start of all memory Group scanning at during the blinking A to C.

The DTX4000 has no information stored in the memory channels.

Memory Write

Select the channel you want to store.

For this example we write CH09 to B group and group channel 8.

- Press hold MR/MW button. The memory write.
 The appear A and group channel 1 blinking.
- 2. Press MR/MW button change for the B group.
- 3. Press channel selector change of CH mode.
- 4. Channel selector rotation until 8 is shown in group channel display.
- 5. Press hold MR/MW button to save & exit from memory write.

SWP (Swapping Dual RX channel)

The DTX4000 can receive two channels simultaneously.

The main receiver default channel is 12 and Sub receiver default channel is 40.

The Sub channel can be turned on and off by pressing and holding the SRX button the "S" indicator on the display will be on if the SRX is on.





It is not possible to transmit on the SRX you must swap the SRX and Main RX to transmit on that channel.

To adjust the volume of the SRX channel push the channel change dial 3 times the display will show SVL and the level.





SRX On/Off

Press hold SWP/SRX button to turn SRX off.



To return to Dual RX mode press and hold the SRX button for 2 seconds.



Menu list

- * Press menu button to access menu.
- * Use the channel dial to change the value of each setting.
- * If a button is not pressed within 8 seconds the radio will automatically exit the menu mode.
- * You can exit the menu by briefly pressing PTT button.
- * Please see below menu modes.



Function	Step	Display	Default
	Off		
Duplex On/Off		laf ·	On
	On		
	Off		
CTCSS and DCS	to	# T500F	Off
	104		
	CT1(67Hz)		
Group Tone Scan		BE 67_0	CT1 (67Hz)
Coan	DCS104		
	0		
Backlight LED colour	to	FOLOR	87(Sky Blue)
201001	95		

	auto			
Bright of		(Man n		
Dimmer	to	20 BRT	4	
	5			
	User			
Reset		QUO RESEL	User reset	
	Factory			
	Off			
Squelch tail		OF SUL	Off	
	On			
	Off	OF BUSY		
Busy channel lock			Off	
	On	2021		
	Off		Off	
Key Beep		OF DEEP		
	On	200		
	On			
Logo Display			On	
	Off			
TPI	On			
		QU OTPI	On	
	Off			

	0		
Treble	to	TRE 2	2
	7		
	p5		
Scan resume time	to	P DSTIME	P5
	5,10,15	3,271	
	Off		
Auto power Off	to	OF AUTOR	Off
	1H,2H,4H	9, 10.0	
Software version	VER 1		

PA (Public Address)

To use and external PA speaker connect the optional PA cable to the External speaker jack on the rear of the radio, connect the PA speaker to the yellow coloured socket and the external CB speaker to the red coloured socket the output will be directed to the PA speaker when PA function is selected.

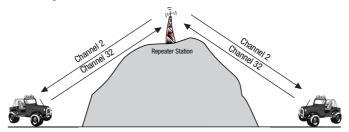
How to operate the Public Address

- 1. Press and hold the PTT while turning the power on
- 2. Press the PTT and speak into the microphone the audio will be output through the PA speaker
- 3. Adjust the volume using the volume control
- 4. To Exit PA mode turn radio off and back on

Duplex

General

Your radio has a Repeater Access function to allow use of local repeater station (if available in your area). Repeaters are shared radio systems installed by interested parties (clubs, local business 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 outputs are on channel 1 to 8 and 41 to 48) but transmit to the repeater channel 31 through 38 and 71 to 78.

(Factory default is set to On for all repeater channels).

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

CH and	Simplex mode Transmit/Receiver	Duplex Mode transmit/Receiver
Number	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	467.5375	477.2875 CH75
46	476.5625	477.3125 CH76
47	476.5875	477.3375 CH77
48	476.6125	477.3625 CH78

For this example we are adopting CH01 as the channel being used for repeater use.

- 1. Press Menu to display Duplex setting.
- 2. Turn the channel selector to change the setting between ON or OFF.
- 3. Press PTT to save & exit from the menu mode.
- 4. R icon is displayed when a selected channel is set to Duplex mode.

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, digitally coded, squelch codes that follow after the 38 CTCSS codes. CTCSS 1 - 38, followed by DCS 1 - 104. (displays A0 to A4 for 100 to 104)

CTCSS and DCS are not available on CH05 and CH35. For your reference a list of the available channels, corresponding frequencies and guidelines for their use and selection is in the CTCSS and DCS channel list.

For Australia, channel 05 and 35 are reserved for Emergency calls.

Group Tone setting

The group tone scan default tone selected is CTCSS 01 (67Hz).

You can select from CTCC 01 - 38 to DCS 01 to 104 code for Group tone scan.

96 multi colour Backlight

You can select from 96 different multi colour backlighting for the LCD backlight.

Backlight dimmer

You can reduce the brightness of the backlight by selecting levels 1 to 5, off or Auto, which will adjust the level of brightness depending on ambient light.

Factory Reset

If the radio's display locks up or stops functioning properly, you might need to reset 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 SCAN/RM button while turning the power on.

The display "AL-reset" or "User-reset" will indicate reset type.

The reset type can select in menu mode.

The user reset will not delete any stored memory channels.

Squelch Tail

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

If Squelch tail in turned ON, on both radios this squelch noise will be muted.

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.

Key Beep

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

Logo Display

The logo display function can control disable and enable.

The off means Logo skip and power ON.

TPI

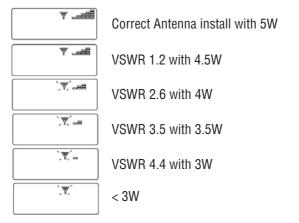
TPI Transmit Power Indicator

VSWR Voltage Standing Wave Ratio is a measurement of how good the antenna (and cable) is matched to the radios output. It is best measured at the antenna as the cable can effect this measurement.

TPI indicates the level of RF power delivered to the antenna connector.

This allows you to see how good the antenna is matched to the transceiver.

Generally a VSWR of less than 2 is an acceptable match.



The VSWR and Power test can vary depending on installation conditions. If TPI feature is turned off in the settings menu, the TPI indicator will show 5 bars during TX.

If an incorrect or no antenna is connected and power output is less than 3.5W, "ANT-X" will be displayed when TPI feature is turned on or off. When "ANT-X" is displayed, the radio has enabled protection mode and reduced RF output.

Treble

Allows adjustment of the level of higher audio frequencies in 8 steps use channel selector to select desired level.

Scan resume time

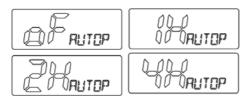
If 5, 10, or 15 sec is selected, SCAN will start again after 5, 10, or 15 second pause even though a signal is still present.

If P5 is selected, SCAN will stop as long as a signal is present and will resume SCAN again 5 seconds later.

Auto power OFF

The auto power off function activated when no receiving and transmitting of radio.

The automatic power off time can be adjusted to OFF, 1, 2, or 4 hours in menu mode.



UHF CB channels and frequencies

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Channel Freq MIIZ Freq MIZ Channel MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz			Tx	Rx			Tx	Rx
01* 476.4250 476.4250 21 476.9250 476.9250 02* 476.4500 476.4500 22† 476.9500 476.9500 42* - 476.4625 62‡ - - 03* 476.4750 476.4750 23† 476.9750 476.9750 43* - 476.5000 476.5000 24 477.0000 477.0000 44* - 476.5250 25 477.0250 477.0250 05* 476.5250 476.5250 25 477.0250 477.0250 45* - 476.5250 25 477.0250 477.0250 46* - 476.5250 25 477.0250 477.0250 06* 476.5250 476.5250 26 477.0250 477.0250 07* 476.5300 476.5750 27 477.0750 477.0625 07* 476.6000 48* - 476.6125 66 477.1125 477.1125 08* 476.6000	Channel		Freq	Freq	Channel		Freq	Freq
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43* - 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 477.0500 46* - 476.5625 66 477.0625 477.0750 07* 476.5750 476.5750 27 477.0750 477.0875 08* 476.6000 476.6000 28 477.1000 477.1075 08* 476.6250 476.6255 68 477.1125 477.1075 9 476.6250 476.6000 28 477.1000 477.1075 48** - 476.6125 68 477.1125 477.1250 49 476.6375 476.6525 69 477.1375 477.1250 50 476.6250 476.6250 29 477.1500 477.1250 10 476.6300 476.6505		42*	-	476.4625		62‡	_	_
04* 476.5000 476.5000 24 477.0000 477.0000 05* 476.5250 476.5250 25 477.0250 477.0250 05* 476.5250 476.5250 25 477.0250 477.0250 45* - 476.5305 476.5305 26 477.0500 477.0500 06* 476.5500 476.5505 26 477.0500 477.0500 46* - 476.5750 26 477.0750 477.0750 07* 476.5750 476.5750 27 477.0750 477.0875 47* - 476.6875 67 477.0875 477.0875 08* 476.6000 476.6025 29 477.1250 477.1250 48* - 476.6250 29 477.1250 477.1250 49 476.6375 476.6375 69 477.1375 477.1625 10 476.6250 476.6625 70 477.1625 477.1625 11 476.6750 476.6750	03*		476.4750	476.4750	23†		476.9750	476.9750
44*		43*	-	476.4875		63‡	_	
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45*		44*	-	476.5125		64	477.0125	477.0125
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 477.1250 9 476.6250 476.6250 29 477.1500 477.1350 10 476.6500 476.6500 30 477.1500 477.1500 50 476.6625 476.6500 30 477.1500 477.1625 11 476.6750 476.6750 31* 477.1750 477.1750 51 476.6875 476.6875 71* 477.1250 477.1750 51 476.6875 476.6750 31* 477.1250 477.1750 51 476.7870 476.7125 72*	05*		476.5250	476.5250	25		477.0250	477.0250
46*		45*	-			65	477.0375	
07* 476.5750 476.5750 27 477.0750 477.0750 477.0750 08* 476.6000 476.6000 28 477.1000 477.1000 477.1000 48* - 476.6250 29 477.1250 477.1250 9 476.6250 476.6250 29 477.1250 477.1250 10 476.6375 476.6375 69 477.1375 477.1500 50 476.6500 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* 477.2000 477.2000 52 476.7000 476.7000 32* 71* 477.2000 477.2000 52 476.7125 476.7125 72* 477.2125 - 13 476.7250 476.7375 73* 477.2250 477.250 53	06*		476.5500		26		.,,,,,,,	
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08* 476.6000 476.6000 28 477.1000 477.1000 48* - 476.6125 68 477.1125 477.1250 9 476.6250 476.6250 29 477.1250 477.1250 49 476.6375 69 477.1500 477.1500 50 476.6500 476.6500 30 477.1500 477.1625 11 476.6750 476.6750 31* 477.1750 477.1750 51 476.6875 476.6875 71* 477.1875 - 12 476.7000 476.7000 32* 477.2000 477.2000 52 476.7125 476.7125 72* 477.2125 - 13 476.7250 476.7375 73* 477.2375 - 14 476.7300 476.7500 34* 477.2375 - 14 476.7500 476.750 34* 477.2375 - 14 476.750 476.750 35* 477.2750 477.2750 <td>07*</td> <td></td> <td>476.5750</td> <td>476.5750</td> <td>27</td> <td></td> <td>477.0750</td> <td>477.0750</td>	07*		476.5750	476.5750	27		477.0750	477.0750
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 30 477.1625 477.1625 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 - 12 476.7000 476.7000 32* 72* 477.2000 477.2000 52 476.7125 476.7125 72* 477.2250 477.2000 13 476.7250 476.7375 73* 477.2375 - 14 476.7305 476.7500 34* 477.2350 477.2500 54 476.7625 476.7750 35* 74* 477.2750 477.2750 55 476.7875		47*	-	476.5875		67		
9 476.6250 476.6250 29 477.1250 477.1250 49 476.6375 476.6375 69 477.1375 477.1375 10 476.6375 476.6375 69 477.1375 477.1375 50 476.6300 476.6500 30 477.1500 477.1625 50 476.6625 70 477.1750 477.1625 11 476.6750 476.6750 31* 477.1750 477.1750 51 476.6875 476.6875 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 53 476.735 476.7355 73* 477.2500 477.2500 40 476.7500 476.7625 74* 477.2500 477.2500 54 476.7625 476.7855 75* 477.2875<	08*		476.6000	476.6000	28		477.1000	477.1000
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* 477.2000 477.2000 52 476.7125 476.7025 32* 477.2000 477.2000 52 476.7125 476.7125 72* 477.2250 477.2250 53 476.7350 476.7355 73* 477.2250 477.250 476.7500 476.7500 34* 477.2500 477.2500 476.7505 476.7625 74* 477.2625 - 15 476.7625 476.7625 74* 477.2625 - 15 476.7875 476.7875 75* 477.2750 477.3000 55 476.8125 476.8125 76* 477.3000		48*	-			68		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9				29		.,,,,,,	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		49	476.6375	476.6375		69	477.1375	477.1375
11 476.6750 476.6750 31* 477.1750 477.1750 51 476.6875 476.6875 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 54 476.755 476.7750 35* 477.2750 477.2750 15 476.7875 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 476.8375 77* 477.3375 - 57 476.8375 476.8375 77* 477.3	10				30			
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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 34* 477.2500 477.2500 54 476.7625 476.7625 74* 477.2750 477.2750 15 476.7750 476.7750 35* 477.2750 477.2750 55 476.875 476.875 75* 477.2875 - 16 476.8000 476.8000 36* 477.3000 477.3000 56 476.8125 476.8125 76* 477.3250 477.3250 17 476.8250 476.8375 77* 477.3375 - 57 476.8375 476.8300 38* 477.3500 477.3500 18 476.8500 476.8500 38* 477.3500 477.3500		51	476.6875	476.6875		71*	477.1875	-
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 476.7750 35* 477.2750 477.2750 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* 477.3250 477.3250 17 476.8250 476.8250 37* 477.3375 - 57 476.8375 476.8375 77* 477.3375 - 18 476.8500 476.8500 38* 477.3500 477.3500	12				32*			477.2000
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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* 477.3250 477.3250 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	13		476.7250	476.7250	33*		477.2250	477.2250
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* 477.325 - 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		53	476.7375			73*		-
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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	15				35*			477.2750
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		55	476.7875	476.7875		75*	477.2875	-
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	16				36*			477.3000
57 476.8375 476.8375 77* 477.3375 - 18 476.8500 476.8500 38* 477.3500 477.3500		56				76*		-
18 476.8500 476.8500 38* 477.3500 477.3500	17				37*			477.3250
		57				77*		
1 50 1 474 0405 1 474 0405 1 70* 1 477 0405 1	18				38*			477.3500
36 4/0.8023 4/0.8023 /8" 4//.3623 -		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 inclusive are used for mobile reception and channels 31-38 for mobile transmission. Note that additional channels 41-48 and 71-78 may also become available for repeater operation to supplement channels 1-8 and-31-38 respectively as approved by the ACMA CBRS Class Licence in Australia and the MED GURL in New Zealand. This radio is user upgradable at no cost if the Class Licence is amended to allow repeater use on channels 41-48 and 71-78. Details will be made available on our website on how to upgrade the radio to use the repeater channels, if and when approval by the ACMA CBR S Class Licence in Australia and the MED GURL in New Zealand. 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 these channels.

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.

38 CTCSS CODE LIST

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	631
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(do0)	731
31	165	66	412	101(do1)	732
32	172	67	413	102(do2)	734
33	174	68	423	103(do3)	743
34	205	69	431	104(do4)	754
35	212	70	432		

Customer Support

If you have any problems setting up or using this product you will find useful tips and information in the Troubleshooting section of this user guide as well as "Frequently Asked Questions" on our website www.oricom.com.au.

If you have further questions about using the product after reviewing the resources above or would like to purchase replacement parts or accessories please call our Customer Support Team. Our dedicated local support team are more likely to be able to help you than the retailer where you made your purchase.

Important

Please retain your purchase receipt and attach to the back page of this user guide as you will need to produce this if warranty service is required. Take a few moments to register your product online: www.oricom.com.au.

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 5 years 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:

- 1. 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;
- 3. Any external cause beyond our control, including but not limited to power failure, lightning or over voltage; or
- 4. 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, 1300 889 785 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.

Express Warranty (Australia)

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.

Contact details for Oricom support and warranty claims in Australia

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

Email: support@oricom.com.au

Phone: 1300 889 785 or (02) 4574 8888 (Monday to Friday 8am to 6pm AEST)

Web: www.oricom.com.au Fax: (02) 4574 8898

Contact details for Oricom support and warranty claims in New Zealand

Email: support@oricom.co.nz

Phone: 0800 674 266

(Monday to Friday 10am to 8pm NZST)

Web: www.oricom.co.nz

