



User Guide

For UHF400 80 Channel UHF 2-WAY 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

Why has the ACMA increased the number of available UHF CB channels?

To provide additional channel capacity within the UHF CB Band the ACMA will over the next 5 years change the majority of the current wideband 40 channel use to narrowband 80 channel use.

During this time wideband channel use will be gradually phased out as users upgrade their existing radio's.

This means that the new Oricom narrowband radio you have purchased will have more channels than older wideband radios. Some of these channels are locked and cannot be used, (see the attached channel chart for more information).

When will 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

Oricom Connecting you now.



**N13134
Z765**

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



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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 1300 889 785
 www.oricom.com.au
 Mon-Fri 8am – 6pm AEST

New Zealand 0800 67 42 66
 www.oricom.co.nz
 Mon-Fri 10am – 8pm NZST

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



WARNING

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

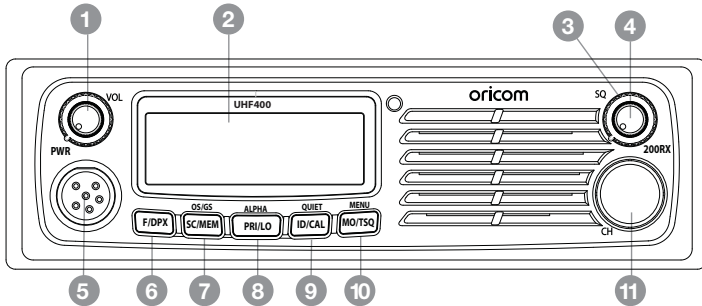
To avoid possible interference with blasting operations, turn your radio OFF near electrical blasting caps or in a “blasting area” or in areas posted: “Turn off two way radios.” Obey all signs and instructions.

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.

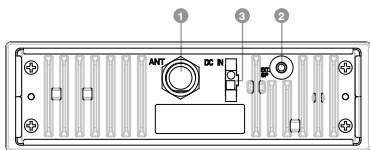
Controls and Connectors

Front View



1. Rotary On / Off Switch and Volume Control
2. LCD Display
3. Rotary squelch control
4. 200 RX Channel RX Selector switch
5. Microphone connector
6. Function button by short push & Duplex On/Off by long push
7. Open Scan, Memory On/Off, Group Scan
8. Primary channel On/Off, Key Lock On/Off, Alpha-numeric display
9. ID Setting, 5 Tone Selcall, Quiet
10. Monitor, TSQ On/Off, Menu
11. Rotary Channel control

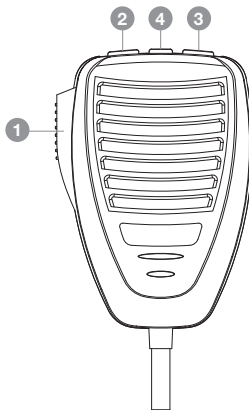
Rear View



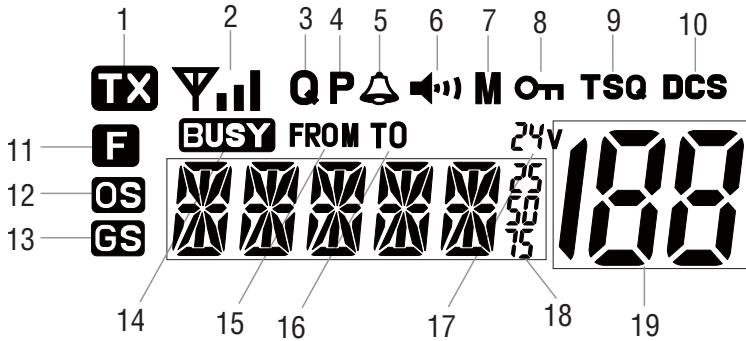
1. Antenna Connection
2. 3.5mm external jack for optional 8 ohm speaker
3. Power Supply Connection

Microphone

1. Push to talk switch (PTT)
2. Select Up
3. Select Down
4. Instant Channel



LCD Icons & Indicators



- | | |
|-----------------------------|-------------------------------------|
| 1. Transmitter Indicator | 11. Function |
| 2. RX or TX Signal strength | 12. Open Scan |
| 3. Quiet mode | 13. Group Scan |
| 4. Priority On/Off | 14. Channel Busy |
| 5. Call Alarm | 15. Selective call Receiving "FROM" |
| 6. Monitor On/Off | 16. Selective call Sending "TO" |
| 7. Memory On/Off | 17. 24V DC indicator |
| 8. Key Lock | 18. Frequency display |
| 9. 38 CTCSS Tone On/Off | 19. Channel display |
| 10. DCS On/Off | |

Installation

Box Contents

- 1 X UHF400 CB Radio
- 1 X Microphone
- 1 X DC Power cord with inline fuse
- 1 X Mounting bracket with mounting screws
- 1 X Microphone hanger
- 1 X DIN mounting kit
- 1 X User Guide

Installation



CAUTION

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.

For optimum performance your radio needs to be installed correctly. If you are unsure about how to install your radio, we suggest for optimum performance 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 radio.**

Using the DIN Kit

The UHF400 comes complete with a DIN kit for mounting in a vehicle dash board

Automatic indicator of High Voltage support

The radio has a high voltage input detection system, to inform you of high voltage use.
Eg. : If the power supply voltage exceeds 18volts DC, The 24v icon display will appear on the LCD when the unit is turned on.

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 +13.8 Volts 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 sensitivity.

A poorly installed, inferior quality antenna or one not designed for the 477MHz 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).
2. 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 radios.**

Optional accessories

If required you may install an external (8 ohm, max 5w power) speaker fitted with a 3.5mm plug (not supplied).

Operation

Tri Function buttons

To use the primary function (**F, SC, PRI, ID, MO**) press the required button.

To use the secondary function (**DPX, MEM, LO, CAL, TSQ**) press and hold the button for 2 seconds.

To use the third function (**OS/GS, ALPHA, QUIET, MENU**), press **F/DPX** and press the required button.

Power ON / OFF

Rotate the power switch in a clockwise direction to turn the unit ON, adjust the volume to a comfortable level. Rotate the Power Switch counter clockwise until it clicks to turn off the power.

Squelch

To adjust the level of squelch use the rotary **SQL** control. Turning the control clockwise reduces the amount of squelch, turning counter clockwise increase the amount of squelch. To reduce the signals that you can hear, increase the squelch, to hear more signals which may include weak signals decrease the squelch.

To Select a Channel

To select a channel rotate the **CH** control clockwise or counter clockwise to the desired channel.

Transmitting

NOTE: Before transmitting on any channel, listen to check the channel is not already in use.

Transmitting

Select the desired channel. Press the PTT button on the microphone and speak normally into the microphone. Hold it approx. 7cm from your mouth. Release the PTT button to end the transmission and listen for a reply.

Transmitting range

The talk range depends on the environment and terrain, it will be affected by concrete structures and heavy foliage.



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

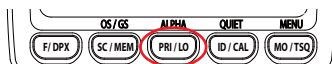
Priority Channel

To store a Priority Channel, press the PRI/LO button. The letter "P" will appear when the priority channel is set. The channel you selected as your Priority Channel will then be automatically monitored during the Group Scan.

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

To store a Priority Channel

1. Select the required channel.
2. Briefly press and hold the **PRI/LO** button a loud beep is heard. The letter "P" appears when the priority channel is set.



CTCSS

CTCSS (Continuous Tone Coded Squelch System)

CTCSS uses a sub-audible tone to open and close the squelch on your radio. This will allow a number of users to share the same channel without disturbing one another.



Monitoring the Channel

Monitoring the channel is helpful as it allows you to listen for other CTCSS users not within your group.

To monitor the channel

Press the **MO/TSQ** button. If no signals are present, a hissing noise will indicate an empty channel.

Press the **MO/TSQ** button again to restore to its previous setting.

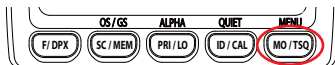
Selecting the Required CTCSS Tone

To pre-select the CTCSS tone on your radio, please refer to the MENU settings on page 20.

Enabling CTCSS on a Channel

If a CTCSS tone has been selected, it is enabled on all channels (except 5/35).

1. Rotate the Channel knob to select the required channel. The letters "TSQ" will appear.
2. Press and hold the **MO/TSQ** button.



Disabling CTCSS on a Channel

Repeat steps 1 and 2 above.

Scanning

The radio SCAN function has the ability to allow programmable channels to be scanned for groups of users.

Channels can be scanned (40 channels per 5 seconds). 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.

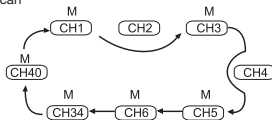
Scan Groups

The Radio features three scan modes - Open Scan, Group Scan and Memory Scan.

Open Scan

The Open Scan feature scans for activity on all CB channels. Once a channel is located, scanning will pause then will allow the signal to be heard. As soon as the channel is clear for 5 seconds, scanning will continue automatically.

Open Scan

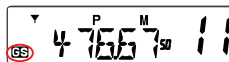
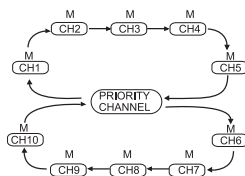


Group Scan

With Group 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 signals received on your Priority Channel will take precedence over any signals received on the other channels.

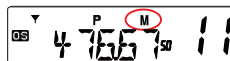
GROUP OR PRIORITY SCAN



Allows you to monitor a Priority Channel while scanning other channels in the GS memory.

Memory On/Off

Push and hold the **SC/MEM** button for 2 seconds, "M" will appear above the selected channel. Press **SC/MEM** button to remove scan memory from the selected open scan mode.



Selcall

Selcall or Selective Calling is a function that allows you to selectively call another radio, using a unique ID number. Your radio has 10 programmable Selcall ID memories. The ID memories are displayed as "C0 to C9". Here you will program Selcall ID numbers of other radios.

Your Radio's Selcall Identification number is preset at "12345". **You must change this number to your own unique five digit Selcall ID number.**

Selcall Identification Name

In addition to the Selcall ID number, each Selcall ID can be named using a 5 character ALPHA name. The ALPHA name is stored in memory along with the ID code. When an incoming Selcall is received and the Selcall matches one of those in your radio's memory. The name can be displayed instead of the Selcall ID number.

Recalling Selcall Idents from Memory

1. Press the **ID/CAL** button to select the **CALL TO** mode.
2. To select the required Identity in memory locations 'C0' to 'C9'. Rotate the channel knob on the front display.
3. When the required Selcall Memory is displayed, press and hold the **ID/CAL** button to send TO.



Displaying ALPHA Names

To display the Selcall's ALPHA Name You must have the radio's ALPHA display mode selected.

To select the ALPHA display mode briefly press the **F/DPX** button followed by the ALPHA button. 'ALPHA' or 'NUMER' will be displayed for 2 seconds below the channel display to indicate the selected mode.

Entering, Editing and Storing a Selcall Name or ID number

1. Briefly press the **ID/CAL** button. The **CALL TO** mode will be selected and the last-sent Selcall memory location will be displayed.
2. Rotate the Channel knob to select the required Selcall memory (locations C0 to C9). If no ALPHA name or ID number has been programmed for that memory, the radio will display '- - - -' otherwise it will display the last ALPHA name or NUMERIC code programmed into that memory.
3. With the required memory location displayed, enter the required ALPHA name or NUMERIC code as follows:
 - (a) Press and hold the **F/DPX** button until the radio beeps. The right hand character will flash. Rotate the Channel knob to select the required letter or number in the flashing character position.



The following characters are available:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z, 0 1 2 3 4 5 6 7 8 9 _ * -

- (b) Briefly press the **F/DPX** button again to select the next character position.
- (c) Repeat steps (a) and (b) to enter all 5 characters as required.
- (d) Now press and hold the **F/DPX** button for 2 seconds. Then the radio will beep when the name or number is stored.

Repeat the procedure to add ALPHA names or numbers to any other Selcall Idents stored in memory.

To exit CAL-TO mode

Briefly press the **ID/CAL** button. The radio will return to normal operation.

Receiving Selcalls

When the Radio receives an ID code that matches your Selcall ID, it will automatically transmit an alarm tone. The caller's Selcall ID name or number will be displayed.

To return the call

Press **F/DPX** and hold the **ID/CAL** button for 2 seconds until the radio beeps. The callers Selcall Identity will be sent to the caller.

Cancelling the Selcall Alert

To cancel the alarm and talk on the channel, press the PTT button. The alarm will be cancelled and the channel will be open for normal communication.

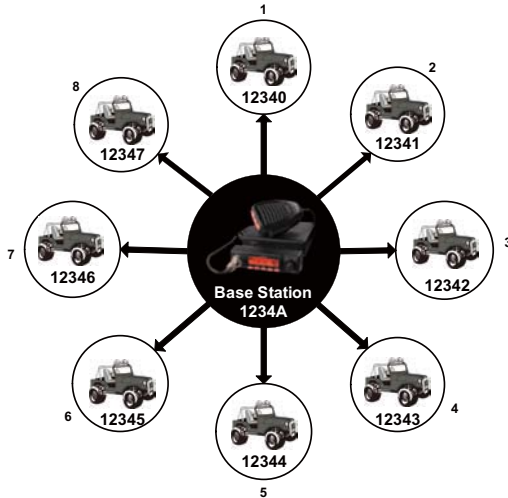
Group Calling

The Group Calling function allows you to transmit an "ALERT" tone to all members of a group at the same time.

To setup Group Calling you must arrange your group ID codes in a certain format.

Example:

If one group consists of 8 vehicles the Group ID codes are arranged as follows:



To call the group, program the Base radio Group ID code to 1234A. When you call the group, all of the above vehicles will receive the Group Calling Tone. Group call IDs can be stored in memory the same way as a Standard Selcall ID code, please refer to Entering, Editing and Storing a Selcall ID number at page 14.

10 Radios	
Group ID	Individual ID
1234	0
1234	1
1234	2
1234	3
UP TO	
1234	9

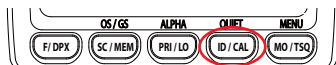
100 Radios	
Group ID	Individual ID
123	00'
123	01'
123	02'
123	03'
UP TO	
123	99'

QUIET Mode (Q)

Puts the receiver in the Q mode. When activated, the radio prevents any unwanted conversations in the channels from being heard unless the call is specifically directed to you and the Selective call ID required to open the Q mode condition has been received.

Under this condition, the PTT button is temporarily disabled.

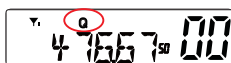
If you wish to use the same Channel for normal communication, simply remove the Channel from Q mode.



Setting up QUIET Mode

To setup QUIET mode you must first 'tag' the channels that you want to stay quiet, then activate the QUIET mode. Once QUIET mode is activated, the channels you have tagged will remain quiet to all incoming signals unless your Selcall Ident is received. Channels not tagged will remain open to all signals and will operate normally.

- 1) Select the channel you want to put in "Q" mode using the channel selector.
- 2) Briefly press **F/DPX** and then Quiet button. A beep is heard and the Q icon appears on the LCD display.



- 3) While in Q mode condition, when the radio receives a code matching your ID, it will perform the following operations.
 - Automatically responds to the caller by transmitting Acknowledge tones.
 - Informs you that a caller is on the channel by emitting CALL Alarm and displays FROM icon.

Menu Functions

The MENU feature 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. Briefly press the **F/DPX** button, then the MENU button. The first Menu function is displayed.
2. Briefly press the **SC/MEM** button to cycle through each available function. After the last function has been selected, the cycle returns to the beginning.
3. Rotate the Channel knob to alter the parameters of the selected function.
4. Briefly press **F/DPX** button and then press Menu button to exit and store any changes.

Third functions

- If you change value of each setting. Use up and down key.
- If you change functions. Use Scan key to select next function.
- If a button is not pressed within 8 seconds the Radio will be automatically exit the menu mode.
- The menu button allows you to make a number of configuration changes.

CTCSS_DCS	Select 38 CTCSS or 104 DCS code
LIGHT	Select briht and dimmer
COLOR	Select Green or Orange LCD Backlight colour
BEEP	Select Key beep sound On or Off
BCL	Select Busy channel lock On or Off
ST TIME	Select Scan restart time
RGB_B	Select Roger beep On or Off

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 a digital extension of CTCSS. It provides 104 extra, digitally coded, squelch codes that follow after the 38 CTCSS codes. CTCSS 1-38, followed by DCS 1-104.

Light

You can reduce the brightness of the LCD backlight to be more comfortable while driving at night.

Back light 2 Color

You can select from two color options for the LCD backlight. The two options are Amber and Green.

Key Beep On/Off

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

Busy Channel Lock

If you selected On the BCL feature of the UHF400 you will be prevented from accidentally transmitting while the channel is in use.

Scan stop control

The scan resume condition can be set as a pause (P5) or time scan (5/10/15). When a signal disappears, scan resumes after 5 sec. has passed regardless of the setting.

5/10/15: Scan pauses for 5, 10 or 5 sec. When a signal is detected, then resumes after that.

P5: Scan pauses until the signal disappears and then resumes after 5 sec.

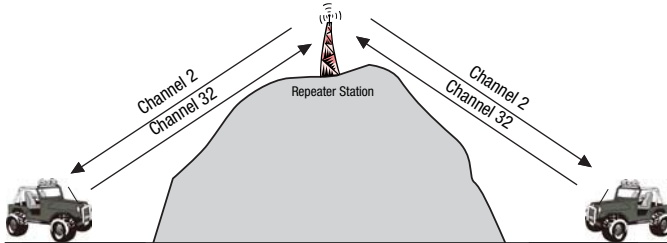
Roger Beep

This function emits a beep to inform the other listening stations that your transmission has finished.

Duplex Operation

General

Your radio has a Repeater Access function to allow use of local Repeater stations (if available in your area). Repeaters are shared radio system 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 31 to 38) 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 transmits to the repeater channel 31 through to 38 and 71 through to 78.

e.g.

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

CH02 on Duplex mode will receive on CH01 but transmit on CH32.

CH and Number	Simplex mode Transmit/reciever Frequency (MHz)	Duplex Mode transmit 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

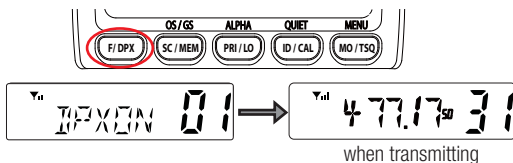
41	476.4375	477.1875 CH71
42	476.4625	477.2125 CH72
43	476.4875	477.2375 CH73
44	476.5125	477.2625 CH74
45	467.5375	477.2875 CH75
46	476.5625	477.3125 CH76
47	476.5875	477.3375 CH77
48	476.6125	477.3625 CH78

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 UHF400 allows you to pre-select Duplex operation individually on each channel.

Push and hold the **F/DPX** button for 2 seconds, "DPXON" should appear on the LCD.

Push **F/DPX** button to toggle the Duplex function On and Off.



Key Lock

Push and hold the **PRI/LO** button for 2 seconds to lock all buttons except for the buttons below.

(volume up and down, Power On/Off, Monitor, **F/DPX**, Push to talk).



200 RX channels

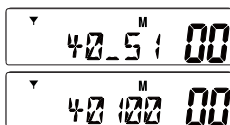
The UHF Radio has a wideband search feature which will allow you to search frequencies ranging from 400-512MHz in 12.5KHz steps. You may search the full range or you may search one of 4 smaller bands separately.

200 RX

Turn power on.

Briefly press the **200RX** button.

* Display will briefly show default frequency band range.



The RX only channels has 3 default frequencies stored as below.

Channel 00 has 401.00MHz,

Channel 01 has 470.00MHz.

Channel 02 has 511.9750MHz.

Select full range or 1 of 4 smaller bands

The UHF radio has 5 different search range as below.

Display	Frequency range	CH store
"40 - 51"	401MHz to 512MHz	00 - 199
"40 - 42"	401MHz to 420MHz	00- 49
"42 - 45"	420MHz to 450MHz	50 - 99
"45 - 47"	450MHz to 470MHz	100 - 149
"47 - 51"	470MHz to 512MHz	150 - 199

Briefly press the "PRI/LO" button, the frequency range should be change as above.

The separated band will use more quick serach scan.

Manual programming

If you want store frequency 403.0250 at 03 channel with 40-42 small range (40-42).

1. Press the 200RX button
2. press "PRI/LO" button until "40-42" is briefly displayed
3. Rotary channel select to "03" channel.
4. Press and hold the "PRI/LO" button 2 seconds. "400" first digit should be blinking.
5. Rotary channel switch to select "403".
6. Press The "PRI/LO" button, next 2 digits will be blinking for the next frequency digits.
7. Rotary channel switch to select "0250".
8. To store the required frequency, briefly press the "ID/CAL".
9. To exit: repeat step 1.

Automatic Programming

1. Press the power turn the radio on.
2. Briefly press the 200RX button.
3. Rotary channel select to you want required channel. Example channel "04".
3. Briefly press SC/MEM button (OS is displayed).
4. Autoscan will commence in 2 to 3 seconds.
5. To store the required frequency, briefly press the ID/CAL button.
The stored channel will appear with "M" on the LCD.
6. To exit, repeat step 2.

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!

While holding the **F/DPX** button, turn the UHF radio on. INITI AL will be displayed for 1 to 2 seconds, the radio will then return to its original display.



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		Tx	Rx	Channel		Tx	Rx
		Freq MHz	Freq MHz			Freq MHz	Freq MHz
01*		476.4250	476.4250	21		476.9250	476.9250
	41*	-	476.4375		61‡	—	—
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*	-	476.4875		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

UHF channels and frequencies

	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	476.7625	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.

† 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.

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		

UHF400 Technical Specification

Compliance	AS/NZS 4365:2011
Frequency Range TX	476.425 - 477.4125 MHz
Frequency Range RX	400 - 512MHz
Number of TX/RX Channels	75 UHF CB
Number of user programmable RX only Channels	200
Channel Spacing TX/RX	12.5KHz
Wide Band Scanner	400~512, 400~420, 420~450, 450~470, 470~512MHz
Operating modes	Simplex, Repeater TX offset (+750kHz)
Selcall ID	5 Digit with alpha display
Scanning Speed	130 msec per channel
Antenna Impeadance	50 Ohms
Operating Volts nominal	13.8 VDC
Operating Volts Range	10 to 30 VDC
Over Voltage Protection	Voltage regulator
Over Current Protection	2 Amp fuse
Reverse Polarity Protection	Series Diode
Frequency Stability	+/- 2.5ppm
Transmitter	
RF Output Power	5watts max
Modulation	F3E (FM)
Maximum Deviation	2.5kHz
Spurious Emissions	< -30 dBm
TX Audio pre-emphasis	+ 6dB/octave from 300Hz to 3kHz
Current Consumption during TX	1.6 Amps with 50 Ohm antenna termination
Reciever	
Circuit Type	Dual conversion superheterodyne
IF Frequencies	1st IF = 21.4MHz, 2nd IF = 450kHz
Current Consumption during RX	200mA
Sensitivity	> -123dBm at 12dB SINAD
Sensitivity Receive only channels	< -110dBm for 12dB SINAD
Selectivity	+/-3.75kHz min @ 3dB to +/-15kHz max @ 40dB

UHF400 Technical Specification

Intermodulation Immunity	> 70dB
Spurious Immunity	> 70dB
Audio Output Power	3 Watts Maximum
RX Audio de-emphasis	-6dB/octave 300Hz to 3kHz
Audio frequency response	300Hz to 3kHz
External speaker jacks	For optional 8 Ohm mono speaker (3.5mm jack.)
Dimensions	Transceiver 110 (d) x 178 (w) x 51 (h)
Weight	790g

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

How to make a claim under Warranty in Australia

Oricom has a simple warranty process for you to follow:

- Please call or email our Customer Support Team, contact details follow.
- 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 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.

Warranty Information (Australia)

This 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 makes no other warranties or conditions, express or implied, including as to acceptable quality and fitness for a particular purpose, except as stated in this Warranty.

Any implied warranties that may be imposed by law are limited in duration to the Warranty Period.

Oricom warrants that the product is free from defects in materials or workmanship during the Warranty Period. This Warranty does not extend to any product from which the serial number has been removed or was purchased outside of Australia.

This warranty in no way affects your statutory warranty rights under the Competition and Consumer Act 2010 or any other similar legislation.

The Warranty Period will be 3 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 warranty services.

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

Rechargeable battery cells and rechargeable battery packs (if supplied) with this product are covered under this warranty for a period of 90 days.

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 Warranty Period of the Oricom branded product in which they are installed, whichever is longer. During the Warranty Period, Oricom will where possible repair and if not replace the faulty product or part thereof. All component parts removed under this Warranty become the property of Oricom. In the unlikely event that your Oricom product has a recurring failure, Oricom may, 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.

Oricom does not warrant that the operation of the product will be uninterrupted or error free.

Oricom is not responsible for damage that occurs as a result of your failure to follow the instructions that came with the product. These terms and conditions together with any specific terms and conditions contained in the user guide to the product purchased constitute the complete and exclusive agreement between you and Oricom regarding the product.

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

Oricom will not be in breach of a warranty expressly set out in this User Guide or under the Competition and Consumer Act 2010 and excludes any liability for damages or any other remedy arising under any other legislation or the common law if the damage occurs as a result of:

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. negligence on your part or misuse by you of the product;
3. an uncontrollable external cause which results in the product not functioning including but not limited to power failure, lightning or over voltage; and
4. modification to the product or services carried out on the product by anyone other than Oricom or Oricom's authorised service provider.

Oricom will not be liable for any damages caused by the product or the failure of the product to perform, including any lost profits or savings or special, incidental or consequential damages. Oricom is not liable for any claim made by a third party or made by you on behalf of a third party. This limitation of liability applies whether damages are sought, or a claim made, under this Warranty or as a tort claim (including negligence and strict product liability), a contract claim or any other claim. However, this limitation of liability will not apply to claims for personal injury. Nothing in this Warranty excludes, restricts or modifies any condition, warranty, right or remedy which pursuant to the Competition and Consumer Act 2010 applies to this Warranty

Warranty

and which may not be so excluded, restricted or modified. For warranties that cannot be excluded, restricted or modified, Oricom limits the remedies available to those specified in the relevant legislation.

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.



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
(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

