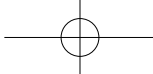


# User Guide

## For UHF400R 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](http://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 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.

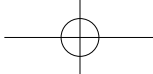
It is expected that as older wideband radios are removed from service that this issue will be resolved. Most radios in use will be narrowband eliminating this issue.

**This information is current at time of printing. For further up to date information please visit [www.acma.gov.au](http://www.acma.gov.au)**



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





## Table of contents

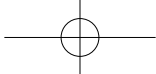
|                                       |    |
|---------------------------------------|----|
| Table of contents .....               | 3  |
| Safety Information and Warnings ..... | 4  |
| Controls and Connectors .....         | 5  |
| Installation .....                    | 9  |
| Operations .....                      | 11 |
| UHF channels and frequencies .....    | 26 |
| UHF400R Technical Specification ..... | 29 |
| Customer Support .....                | 31 |
| Warranty .....                        | 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](http://www.oricom.com.au)  
                    Mon-Fri 8am – 6pm AEST

New Zealand      0800 67 42 66  
                          [www.oricom.co.nz](http://www.oricom.co.nz)  
                          Mon-Fri 10am – 8pm NZST



## Safety Information and Warnings

### 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.

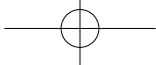
**NOTE:** Areas with potentially explosive atmospheres are often, but not always clearly marked. They include fueling areas such as below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any 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.

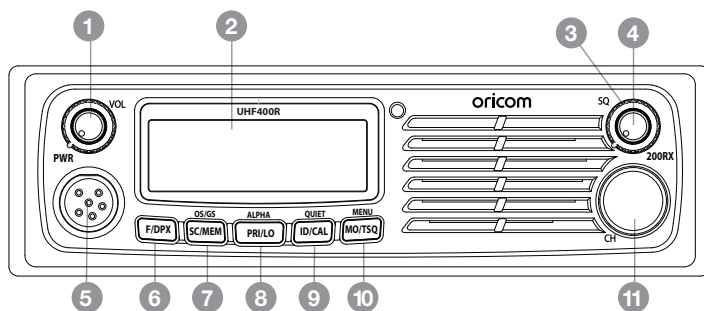
#### Electromagnetic Interference/Compatibility

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.

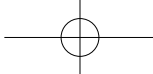


## Controls and Connectors

### Front View

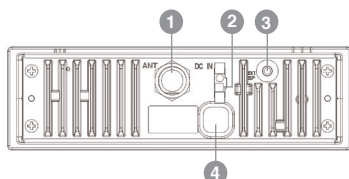


1. Rotary On / Off Switch and Volume Control
2. LCD Display
3. Rotary squelch control
4. 200 RX Channel RX Selector switch
5. Microphone connector
6. Function button by short push & Duplex On/Off by long push & I1
7. Open Scan, Memory On/Off, Priority Scan & I2
8. Primary channel On/Off, Key Lock On/Off, Alpha-numeric display & I3
9. ID Setting, 5 Tone Selcall, Quiet & I4
10. Monitor, TSQ On/Off, Menu & I5
11. Rotary Channel control



## Controls and Connectors

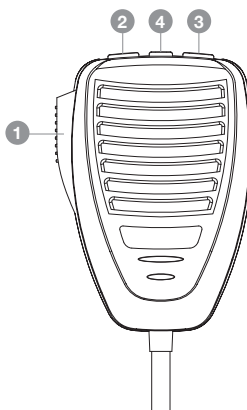
### Rear View

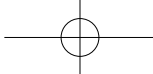


1. Antenna Connection
2. 3.5mm external jack for optional 8 ohm speaker
3. Power Supply Connection
4. Rear microphone jack

### Microphone

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

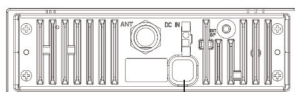




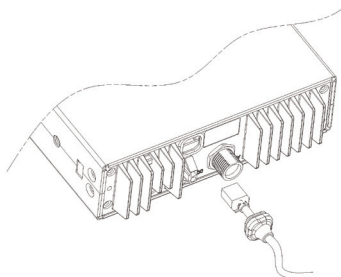
## Controls and Connectors

### Rear Microphone Socket

The UHF400R has been fitted with an additional microphone socket on the rear panel of the radio. To use this socket you must purchase the extension microphone cable.



Removable label

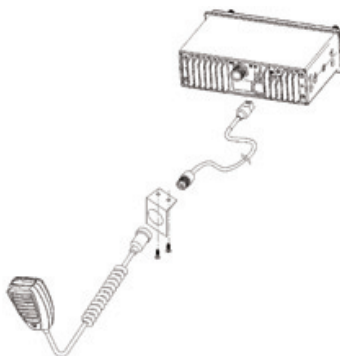


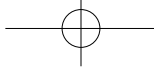
The socket has been covered with a label to stop dust and other partials entering the radio. When you need to use this socket to extend the microphone cable remove the label and fit the extension microphone cable RJ45 plug to the recessed socket and seat the dust cover in the aperture around the cable.

The other end of the microphone cable has a round dust cover fitted please remove this cover and fit over the front panel microphone socket.

When using the extension cable and microphone the front panel microphone socket should not be used.

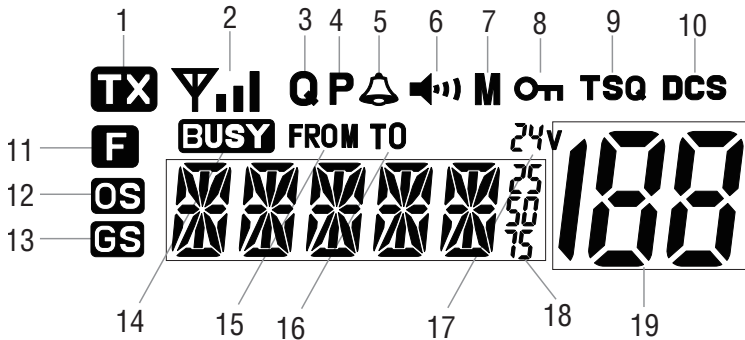
The extension cable is supplied with a socket mounting bracket, push the round microphone extension socket through the large hole in the bracket and then secure in place with the microphone plug.





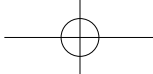
## Controls and Connectors

### LCD Icons & Indicators



- |                             |                                     |
|-----------------------------|-------------------------------------|
| 1. Transmitter Indicator    | 11. Function                        |
| 2. RX or TX Signal strength | 12. Open Scan                       |
| 3. Quiet mode               | 13. Priority 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 UHF400R 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



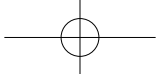
#### CAUTION

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 UHF400R comes complete with a DIN kit for mounting in a vehicle dash board



## Installation

### 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 battery's 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 12 or 24 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 battery's 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.

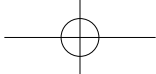
A poorly installed, inferior quality antenna or one not designed for the 477MHz frequency band will give poor performance. You should only purchase an antenna designed for the 477MHz frequency band.

### 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 radio.**

### Optional accessories

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



### Operation

#### Multi-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.

To use the fourth function push the 200RX button for 2 seconds and then select the required instant channel.

#### 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

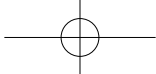
To adjust the level of squelch use the rotary **SQL** control. Turning the control clockwise reduces the amount of squelch, turning counter clockwise increase the amount of squelch. To reduce the signals that you can hear, increase the squelch, to hear more signals which may include weak signals decrease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

#### To Select a Channel

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

#### Instant Channel

To select an instant channel, push and hold the 200RX button for 2 seconds the display will show INST. Then select the required instant channel by pushing button I1 to I5.



## Operations

### Transmitting

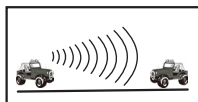
**NOTE:** Before transmitting on any channel, listen to check the channel is not already in use.

#### 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

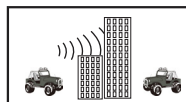
The talk range depends on the environment and terrain, it will be affected by concrete structures and heavy foliage.



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

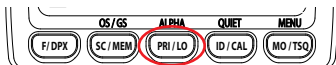
### Priority Channel

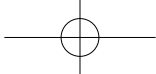
To store a Priority Channel, press the PRI/LO button. The letter "P" will appear when the Priority channel is set. The channel you selected as your Priority Channel will then be automatically monitored during the Priority Scan.

**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.

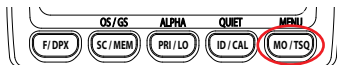
#### Selecting the Required CTCSS Tone

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

#### Enabling CTCSS on a Channel

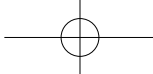
If a CTCSS tone has been selected, it is enabled on all channels (except 5/35).

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.



## Operations

### 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 Modes

The Radio features three scan modes - Open Scan, Priority 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 to allow the signal to be heard. As soon as the channel is clear for 5 seconds, scanning will continue automatically.

Open Scan



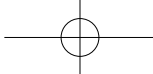
#### Priority Scan

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

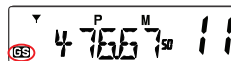
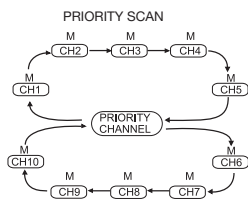
This means that your Priority Channel will be monitored regularly while scanning to ensure that no calls are missed. Any signals received on your Priority Channel will take precedence over any signals received on the other channels.

#### Instant Scan

During Open Scan press and hold SC/MEM button to start Instant Scan, only the channels programmed in the instant channel buttons with 'M' set will be scanned. To stop scan press the SC/MEM button or Push PTT.



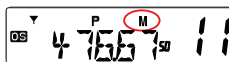
## Operations



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



## Instant Memory

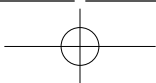
To save a channel to instant memory location select the channel to be saved include any CTCSS or DCS settings. Press the 200RX button for 2 seconds then press and hold the required 'I' button.

The buttons have been preprogrammed with the following I1 CH1, I2 CH12, I3 CH5, I4 CH20, I5 CH40.

## 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 "12345". **You must change this number to your own unique five digit Selcall ID number.**



## Operations

### 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

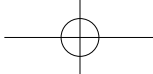
To display the Selcall's ALPHA Name you must have the radio's ALPHA display mode selected.

To select the ALPHA display mode briefly press the **F/DPX** button followed by the **ALPHA** button. 'ALPHA' or 'NUMBER' 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

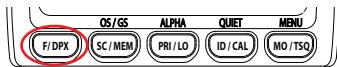
1. Briefly press the **ID/CAL** button. The **CALL TO** mode will be selected and the last-sent Selcall memory location will be displayed.
2. Rotate the Channel knob to select the required Selcall memory (locations C0 to C9). If no ALPHA name or ID number has been programmed for that memory, the radio 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:





## Operations

- (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. 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

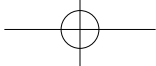
When the Radio receives an ID code that matches your Selcall ID, it will automatically transmit an alarm tone. The caller's Selcall ID name or number will be displayed.

### 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.



## Operations

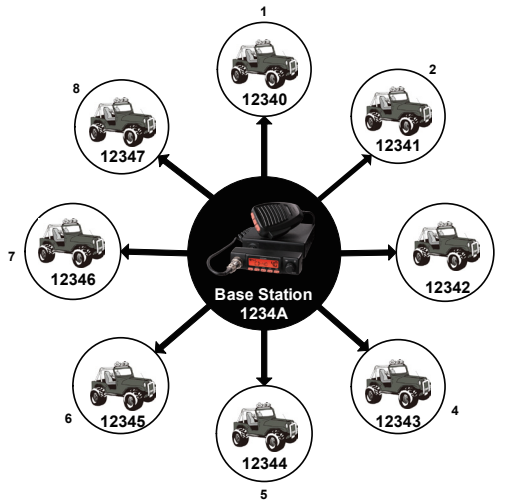
### Group Calling

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:

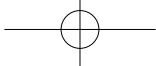
If one group consists of 8 vehicles the Group ID codes are arranged as follows:



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             |

| 100 Radios |               |
|------------|---------------|
| Group ID   | Individual ID |
| 123        | 00'           |



## Operations

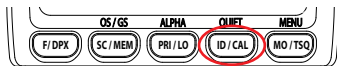
|       |   |       |     |
|-------|---|-------|-----|
| 1234  | 1 | 123   | 01' |
| 1234  | 2 | 123   | 02' |
| 1234  | 3 | 123   | 03' |
| UP TO |   | UP TO |     |
| 1234  | 9 | 123   | 99' |

### 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.



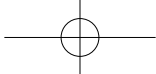
### Setting up QUIET Mode

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:



## 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.

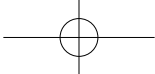
### To access the Menu functions

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 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 the BCL feature is turned 'On' on the UHF400R, you will be prevented from accidentally transmitting while the channel is in use.

### **Scan stop control**

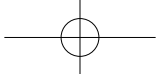
The scan resume condition can be set as a pause(p5) or time scan (5/10/15). When a signal disappears, scan resume after 5 sec. has passed regardless of the setting.

5/10/15: Scan is paused for 5, 10 or 15 seconds when a signal is detected. Scan will then resume after this time has elapsed.

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.

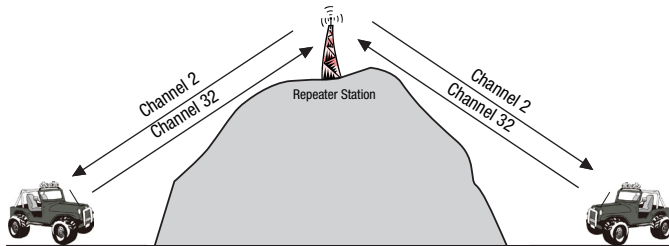


## Operations

### 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.



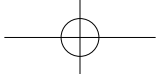
The Repeater Access function can be set (from channel 1 to 8 and 31 to 38) used by local repeater stations. When activated, your radio will receive the Repeater on its specific channel (all repeater outputs are on channel 1 to 8 and 41 to 48) but transmits to the repeater channel 31 through to 38 and 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 CH02 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                        |



## Operations

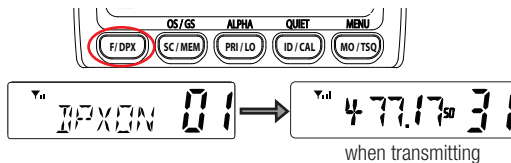
|    |          |               |
|----|----------|---------------|
| 41 | 476.4375 | 477.1875 CH71 |
| 42 | 476.4625 | 477.2125 CH72 |
| 43 | 476.4875 | 477.2375 CH73 |
| 44 | 476.5125 | 477.2625 CH74 |
| 45 | 467.5375 | 477.2875 CH75 |
| 46 | 476.5625 | 477.3125 CH76 |
| 47 | 476.5875 | 477.3375 CH77 |
| 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 UHF400R 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

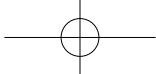
Push and hold the **PRI/LO** button for 2 seconds to lock all buttons except for the buttons below.

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



### Instant Channel

To select an instant channel push and hold the 200RX button for 2 seconds. The display will show INST. Select the required instant channel by pushing button I1 to I5.



## Operations

### 200 RX channels

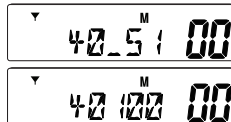
The UHF Radio has a wideband search feature which will allow you to search frequencies ranging from 400-512MHz in 12.5KHz steps. You may search the full range or you may search one of 4 smaller bands separately.

#### 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

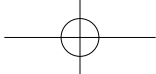
The UHF radio has 5 different search range as below.

| 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 change as above.

The separated band will search faster.





## Operations

### Manual programming

If you want to store the frequency of 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. Press the 200RX button to exit.

### Automatic Programming

1. Press the power button to turn the radio on.
2. Briefly press the 200RX button.
3. Rotary channel select to the required channel. Example channel "04".
3. Briefly press SC/MEM button (OS is displayed).
4. Autoscanner 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. Press the 200RX button to exit.

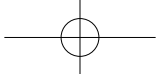
### Factory reset

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.





## UHF channels and frequencies

### Channel Frequency Table

#### Radiocommunications (Citizen Band Radio Stations) Class Licence 2002

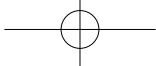
No licence is required to own or operate this radio in Australia and New Zealand. The Radiocommunications (Citizen Band Radio Stations) Class Licence 2002 contains the technical parameters, operating requirements, conditions of licence and relevant standards for Citizen Band (CB) radios. CB radios must 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<br>Freq<br>MHz | Rx<br>Freq<br>MHz | Channel |     | Tx<br>Freq<br>MHz | Rx<br>Freq<br>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.

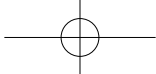
CTCSS and DCS will not operate on channels 5 and 35.

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.

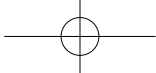
Channel 9 and above are the best choices for general use in Simplex mode.



## UHF channels and frequencies

### 38 CTCSS CODE LIST

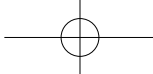
| CODE | Frequency(Hz) | CODE | Frequency(Hz) |
|------|---------------|------|---------------|
| OFF  | OFF           | 20   | 131.8         |
| 1    | 67.0          | 21   | 136.5         |
| 2    | 71.9          | 22   | 141.3         |
| 3    | 74.4          | 23   | 146.2         |
| 4    | 77.0          | 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         |      |               |



## UHF400R Technical Specification

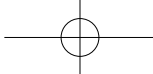
### UHF400R Technical Specification

|  |  |
|--|--|
| 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                                     |
| <b>Transmitter</b>                           |  |
| 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       |
| <b>Reciever</b>                              |  |
| 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            | Less than > -110dBm for 12dB SINAD             |
| Selectivity                                  | +/-3.75kHz min @ 3dB to +/-15kHz max @ 40dB    |



## UHF400R 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

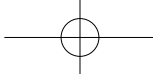
### Customer Support

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](http://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](http://www.oricom.com.au).



## Express Warranty

### 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.

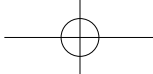
Nothing in this Express Warranty excludes, restricts or modifies any condition, warranty, guarantee, implied term, right or remedy pursuant to the Australian Consumer Law and which may not be so excluded, restricted or modified. For such conditions, terms, guarantees and warranties that cannot be excluded,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





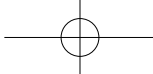
## Express Warranty

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.



## Express Warranty

### 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.

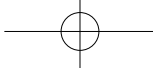
Please note that if a Customer Support Team member advises that your product does not qualify for return, this warranty does not apply to your product. Products that are authorised to be returned to Oricom in Australia must include all of the following:

- 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.

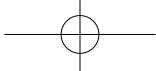


## Express Warranty

### 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](mailto:support@oricom.com.au)  
Phone: 1300 889 785 or (02) 4574 8888  
(Monday to Friday 8am to 6pm AEST)  
Web: [www.oricom.com.au](http://www.oricom.com.au)  
Fax: (02) 4574 8898

### **Contact details for Oricom support and warranty claims in New Zealand**

Email: [support@oricom.co.nz](mailto:support@oricom.co.nz)  
Phone: 0800 674 266  
(Monday to Friday 10am to 8pm NZST)  
Web: [www.oricom.co.nz](http://www.oricom.co.nz)



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