DIGITECH

DC-1122

Compact 5W UHF CB Radio

Instruction Manual

Introduction

Feature

- FM transmission

  Frequency:476.4250MHz ~ 477.4125MHz
- 80 channels
- 5W output power
- TOT Timer
- 38 CTCSS and 104 DCS
- 100 User Programmable RX Channels
- Instant Priority Channel setting
- Busy Channel Lockout
- Memory store
- Call tone melody (10 songs)
- Base unit rotary volume
- LCD back-light function(3 colours: orange/red/green)
- Key back-light
- 5 step adjustable and automatic squelch function
- Repeater function
- Key tone function (selectable on/off)
- Roger tone function (selectable on/off)
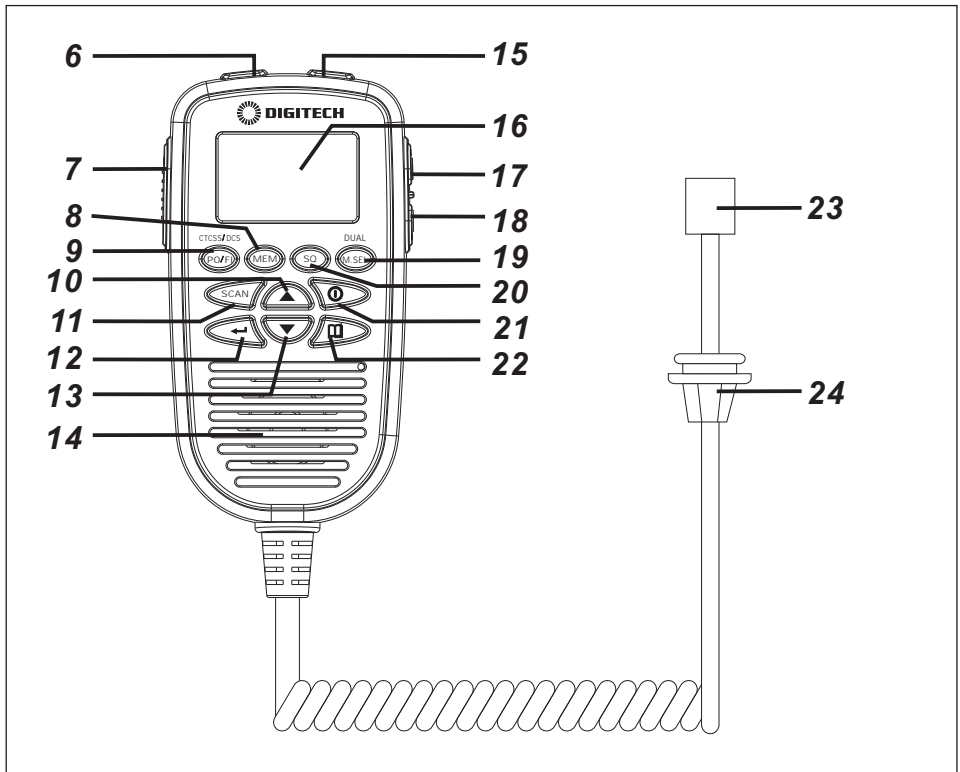- Dual watch function
- Scan channel/Memory scan

Base (front & Rear view)
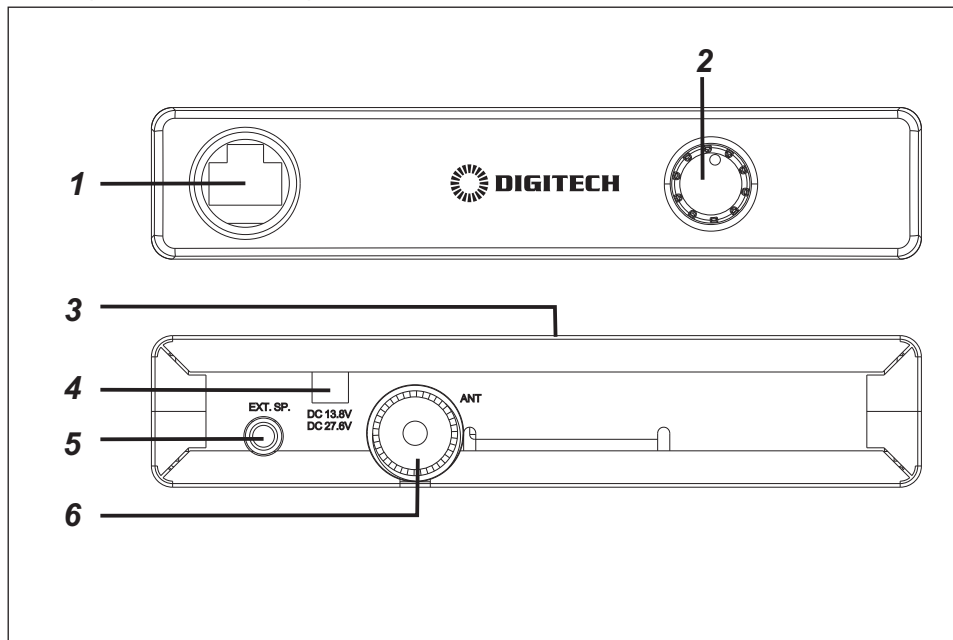
1. MIC Jack

2. Volume knob

3. Main speaker

4. Power Input Connection (13.8VDC or 27.6VDC)

5. EXT SP - External Speaker Jack

6. UHF Antenna Connection

Microphone

6. CALL/SELCALL Button

7. Push To Talk Button

8. Memory Button

9. PO/FI and CTCSS/DCS button

10.Channel Up

11. Scan Button

12.Confirm Button

13.Channel Down

14.Speaker

15.INST Button

16.LCD display

17.Volume Up

18.Volume Down

19.Memory channel Select and
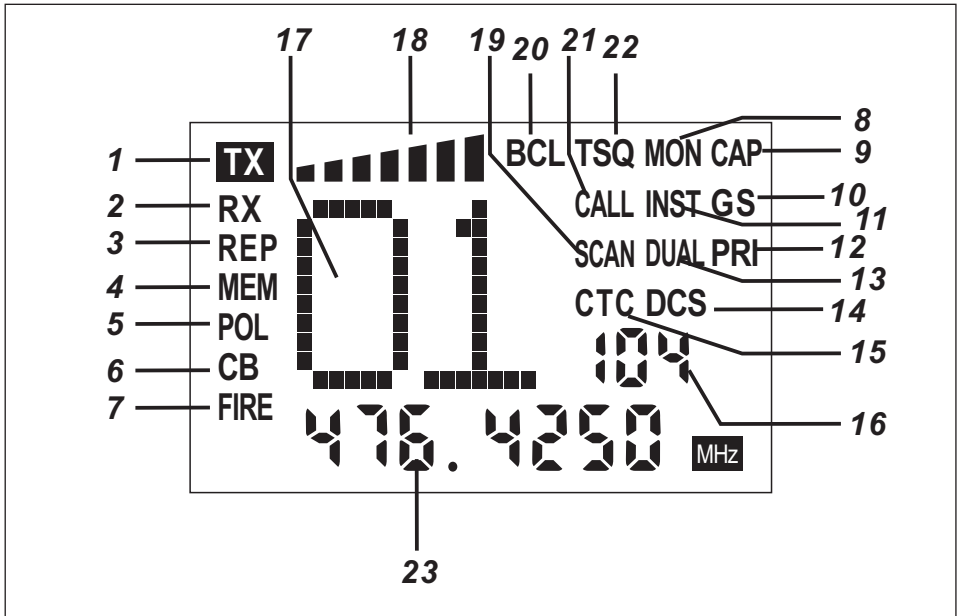   Dual Watch Button

20.Squelch Button

21.Power Button

22.Menu Button

23.RJ45 type plug

24.Jack Cover

LCD display

1. TX - transmit
2. RX- Receiving
3. REP-Repeater function
4. MEM-Memory
5. POL- Police bank
6. CB - UHF CB + Extra RX channel bank
7. FIRE- Fire (+Ambulance) bank
8. MON-Monitor
9. CAP
10. GS- Goup Scan
11. INST- Instant channel
12. PRI- Priority channel watch
13. DUAL-Dual Watch
14. DCS selected
15. CTC- CTCSS selected
16. CTCSS/DCS code number
17. Channel number
18. Signal Power level
19. SCAN- Scan mode
20. BCL- Busy channel lockout
21. CALL- Call tone transmit
22. TSQ- Tone Squelch enabled
23. Channel Frequency

Included with Radio
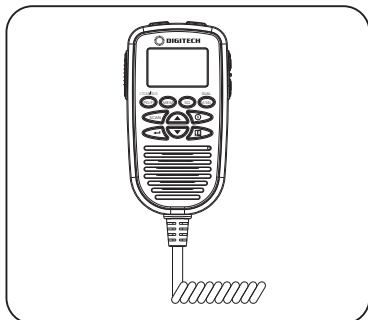
Standard Microphone

Instruction manual

Microphone Hanger,
Screws & Washers

Mounting cradle,
Screws & Washers
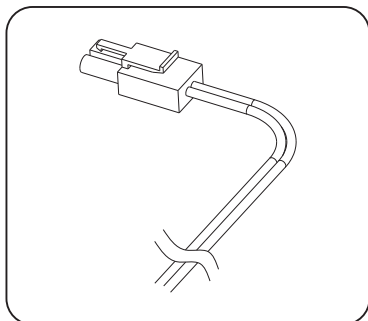
DC Power Cord

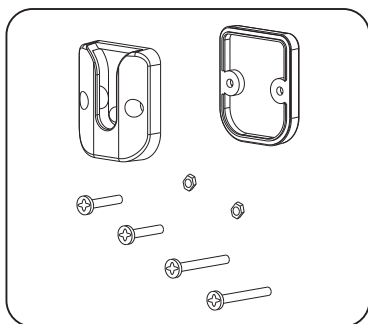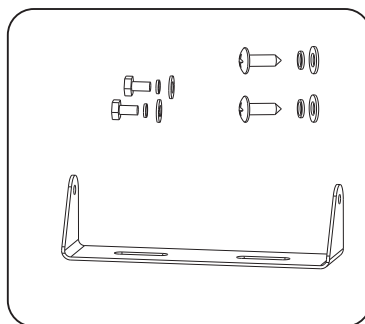## Connecting the Microphone

The microphone uses a miniature 6 pin style plug and socket.
To connect the microphone:

1. Push the MIC plug at the end of the microphone cord into the MIC jack until the connection locks into place.

   Gently tug the MIC cord to test that the connection is locked.

2. Use the MIC Jack cover which is threaded onto the MIC cord to seal the MIC jack entry from dust.
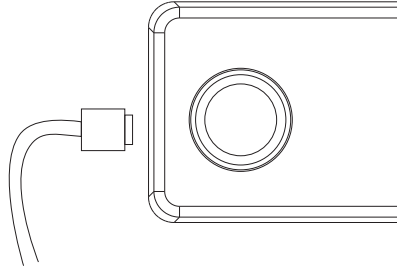
Mounting the Cradle

The cradle can be screwed or bolted in any convenient location in your vehicle (under or above the dash, on the centre console, etc) using the mounting slots provided in the base.

For maximum sound output from the build in speaker, we recommend the cradle be mounted above the radio to minimize any obstruction of the speaker.

Avoid mounting close to heaters or air conditioners. Screw the mounting cradle to a firm surface and put the radio into the cradle from the front until it clicks into place.

Finally, connect the power cord and antenna cable to the sockets provided at the rear of the radio.
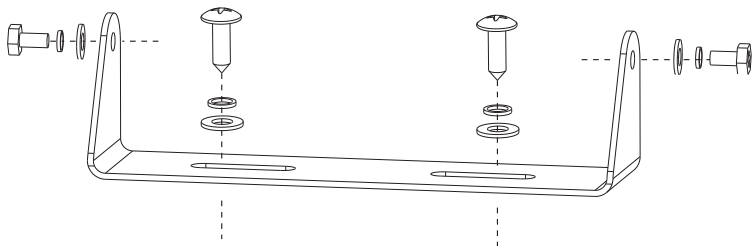
Mounting the MIC Hanger

The Microphone Hanger comes in two parts. How and where you mount the MIC hanger will determine which parts to use.

Conventional Mounting with Screws

Use the front part of the MIC hanger only.

Locate a suitable mounting position, mark and drill two 3mm holes.
Fix the MIC hanger into place with screws.
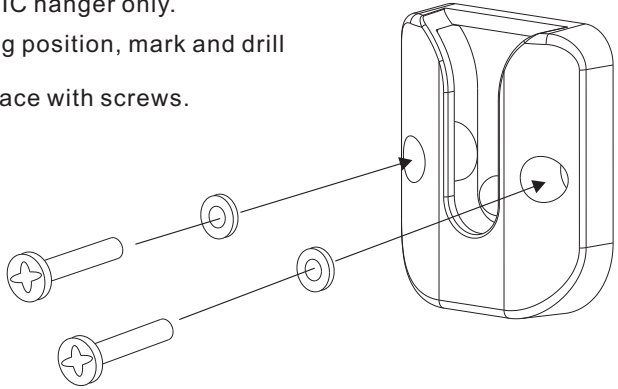
Conventional Mounting with Double Sided Tape (not supplied)

High quality Double-Sided tape can be found at good retail stores.
Secure the front and back pieces of the MIC Hanger using the supplied binding screws.
Locate a suitable mounting position.
Apply high quality Double-Sided tape onto the flat area of the MIC Hanger back piece and then press firmly to the mounting position.
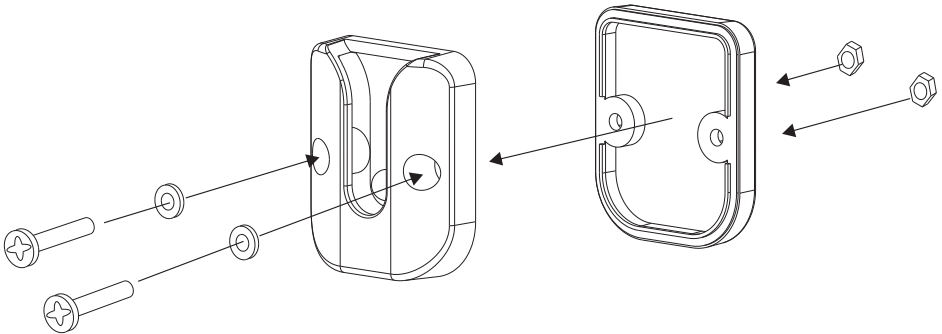
Turning on/off the Power

Press and hold the Power to turn on or off.

Low-Voltage/High-Voltage Alert

This unit can operate on 12V DC (13.8V) or 24V DC (27.6V) power supply , with the range between 10.2V DC to 28.8V DC.

If the power supply voltage exceeds 28.8V DC, an alert tone sounds and HI DC flashes for 5 seconds. The power source must not exceed 32V DC otherwise permanent damage may occur to your radio, which may not be covered by the manufacturer's warranty.

If the input voltage falls below 10.2V DC, LO DC flashes for 5 seconds. The power turns off automatically if voltage falls below 9.0V DC.

Turning your unit OFF and disconnect it from the power source, before locating the cause of the power supply problem.

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NOTE

About channels

The unit has 80 channels, but not all of these are available; several are prohibited for voice transmission and other are restricted, as explained below.

The selected channel is displayed on the LCD.

- Channels 5 and 35 are for emergency calling. Do not use these channels in non-emergency cases. According to AS/NZS 4365:2011. the operation of selective calling (including CTCSS and Scrambler)is prohibited on designated emergency channels 5 and 35.
- Channels 22 or 23 are prohibited for the transmission of speech telephony signals, according to AS/NZS 4365:2011.
- Channels 61,62 and 63 are reserved for future use. They cannot be activated until approved by the ACMA CBRS Class Licence in Australia.
- Channels 1-8 and 31-38, 41-48 and 71-78 are used as repeater channels with 750kHz offset. Channels 1-8 and 41-48 are used for mobile reception, and channel 31-38 and 71-78 for mobile transmission.
- Only use this repeater function when a long distance communication via the local repeater facility is specifically required. Unless it is necessary, avoid operation on locally used repeater input channels (channels 31-38 and 71-78) or locally used repeater receiving channels (channels 1-8 and 41-48).
- Channel 11 is the customary calling channel in Australia for establishing communication.
- Channel 40 is the customary road vehicle channel.

⚠️
NOTE

NOTE: This product is made to the new standard 2011 version. There are possible operational issues during the changeover from the over version 25kHz to the new version of 12kHz channel spacing. They include the consequences of narrowband (with 2.5kHz deviation) transmissions being received on the old wideband equipment, and wideband (with 5.0kHz deviation) transmissions being received on newer narrowband equipment.

There is a possibility of interference due to the older equipment being operated on channels adjacent to new narrowband channels.

The list of currently authorised channels can be obtained from the ACMA website in Australia and MED website in New Zealand.

Selecting a channel

Before selecting a channel for transmitting, always listen on it and ensure it is not already being used.

Always avoid selecting a busy channel when the unit keeps on receiving signal from unknown party. The RX icon will be displayed.

The factory default start up channel is channel 1 and sub-channel 00.

Press ▲/▼ to select the desired channel.

Channel Banks

The unit has three banks(groups) of channels to select from:

CB   UHF CB + user programmable RX channels[1]

POL Pre-programmed Police frequencies[2]

FIRE Pre-programmed Fire & Ambulance frequencies[2]

When the **CB** icon is showing the 80 UHF CB and any user programmed RX channels will be available for selection or scanning. The 80 UHF CB channels are numbered 01-80. The user programmable RX channels are numbered 81-180 and only show, in the CTCSS/DCS code area, when programmed.

When the **POL** icon is showing then pre-programmed police frequencies will be available. When the **FIRE** icon is showing then pre-programmed fire & ambulance frequencies do not have channel numbers, instead **PO** appears in the channel display for a police frequency and **FI** appears for a fire or ambulance frequency.

Press **PO/FI** to select the desired channel banks combination.

The channel banks can be selected as follows:

----	**CB**	----
POL	----	----
----	----	**FIRE**
POL	----	**FIRE**
POL	**CB**	----
----	**CB**	**FIRE**
POL	**CB**	**FIRE**

!

NOTE

[1]Available frequencies & channels are within 400-520MHz band only in 12.5kHz step.

[2] Police, Fire & Ambulance reception is unencrypted analogue.

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

Receiving a signal

The unit is continuously in RECEIVE mode when it is on and not transmitting. When you receive a signal on the current channel, the RX icon will appear.

Transmitting

The unit transmits only on UHF-CB channels.

- Press and hold the **PTT** button to transmit your voice: the TX icon will appear;

- While holding the PTT button, speak into the microphone using a normal tone of voice. Hold the microphone in a vertical position about 5 to 7 cm from the mouth.

Programming the Instant Priority Channel

- Press ▲ or ▼ button to select the Priority Channel you prefer.

- Press and hold **INST** button to store the new setting .INST icon appears.

- Momentarily press **INST** to return to the Instant channel, press **INST** again to return to the previous channel.
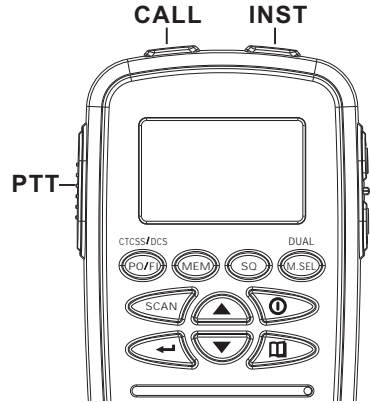
CTCSS (Continuous Tone Coded Squelch System)

The unit has 38 CTCSS private codes available. Different CTCSS tones may be associated to different channels. To choose the desired CTCSS code:

- Press and hold **CTCSS/DCS** button until the CTCSS code number blinks;

- Press ▲ or ▼ button to select the desired CTCSS code number;

- Press and hold ▲ or ▼ button to move faster through the selection;

- Press **CTCSS/DCS** once to store the new setting.

DCS (Digital Coded Squelch)

The unit has 104 DCS private codes available. Different DCS tones may be associated to different channels. DCS codes follow after the 38 CTCSS codes.

Follow the steps for setting a CTCSS code, Press ▲ or ▼ button until the DCS codes flashes.

Press **CTCSS/DCS** to store the new setting.

Selecting a CTCSS/DCS code will disable the CTCSS/DCS feature

- To communicate between two or more units, both the channel and CTCSS/DCS code selections must be the same;

- To communicate with other models and brands of units, the actual frequency and CTCSS/ DCS frequency must be matched;

- CTCSS /DCS codes on emergency channels 5 and 35 are prohibited.

!

NOTE

Squelch level setting

- Press the **SQ** button to set the squelch level.

- Press the ▲ or ▼ button to select the desired squelch level from the following options: 0, 1,2,3,4,5.

- Press and hold the ▲ or ▼ button to move faster through the selection.

- Press the SQ button to store the setting.

<table>
<tr><td>⚠
NOTE</td><td>• If SQL-0 (squelch open) is selected then MON (monitor) icon flashes.
• Selecting SQL-5 may prevent the reception of weak signals.
• High noise areas may still break the squelch.</td></tr>
</table>

Memory Channel Select setting

Press **M.SEL** button to check and select the memory channel you desired.

Dual Watch setting

Dual Watch will continuously monitor the Instant channel and the current channel for activity.

Press and hold **DW** button until DUAL icon appears or disappears.

<table>
<tr><td>⚠
NOTE</td><td>• Every 1.5 seconds the Instant channel is monitored for 100m sec.
• Dual watch function stops temporarily when receiving a signal.
• Dual watch function is invalid in Scan mode.</td></tr>
</table>

Repeater function

The repeater facility is a third party facility that is only available in some local area. When the repeater function is on, the REP icon will be appeared. Only use this function for extending your communication range when you know the channel of the repeater facility in your area.

Unless it is necessary, avoid operation on locally used repeater input channels (channel 1-8 and 41-48) or locally used repeater receiving channels (channels 31-38 and 71-78).

If you transmit on Ch01 Duplex mode, you are actually transmitting on Ch31 the repeater station down-converts your signal and retransmits on Ch01.

Operating the UHF CB Radio in Duplex Mode

- Press MENU button once, the duplex icon flashes;
- Press ▲ / ▼ to change the setting between ON or OFF (standard channel numbering).

REP icon appears when a selected channel is set to Duplex mode.

NOTE

- Only channels 01-08 and channels 41-48 are available for Duplex.
- Check with your local Retailer from information on available repeaters.

Priority Watch

- Press MENU button twice, the PRI icon flashes;
- Press ▲ / ▼ to change the setting between ON or OFF (standard channel numbering).

NOTE

If SCAN is deactivated while it is tuned to an active channel, the unit will stay on that active channel. If none of the channels are active, the unit will reinstate the scan start channel.

Scanning

Channel scan performs searches for active signals in and endless loop of channels.

Scan only checks channels or frequencies that are in the SCAN Memory, which are indicated by the **MEM** icon. The unit has tow Scan Memory modes:

Open Scan (OS) mode and Group Scan (GS) mode, to give you flexibility and allow you to use the radio more effectively.

Furthermore, any combination of the three channel groups can be scanned by pressing **CTCSS/DCS** during scan to select the desired channel groups.

*   Press **SCAN** to start scanning. The SCAN icon appears.

*   The scan direction can be changed at any time by pressing ▲ / ▼ .

*   Press **SCAN** to stop scanning.

Add/Remove channels from scan Memory

Select which scanning mode you wish to use OS or GS. Select the channel you want to store.

Press and Hold **MEM** to store. MEM icon appears.

To remove the channel from SCAN memory, press and hold **MEM** once more.

The MEM icon disappears.

Open Scan (OS) Mode

OS Mode is the default scan setting. All UHF-CB, user-programmed extra RX channels, Police and Fire & Ambulance frequencies have been added to the OS SCAN Memory for convenience. Tao add/remove channels from OS SCAN Memory.

Allows continuous scanning of all selected channels. If an active channel is found, scanning will stop on that channel. If the received signal ceases, the unit will wait 3 seconds for the signal to return, otherwise scanning resumes.

After transmission in scan mode, the unit will wait 20 seconds for the signal to return, otherwise scanning resumes.

To skip the active channel, press ▲ / ▼ momentarily. To deactivate SCAN, press SCAN.

> ⚠️ **NOTE**
> If SCAN is deactivated while on an active channel, the unit will stay on that active channel. If no channels are active, the unit will reinstate the starting channel.

Group Scan (GS) Mode

GS Mode has no channels in the SCAN Memory by default. Channels must be added to the GS SCAN Memory before group scan can start. To add/remove channels from GS SCAN Memory.

Includes the accessory feature priority Watch which allows you to monitor the Instant Priority Channel while scanning.

GS Scanning checks the Instant Priority Channel for activity regularly when Priority Watch is ON.

If the Priority Channel becomes active the unit will stay on that channel for as long as the signal is present. If the received signal ceases, Priority Scanning continues after 3 seconds.

If scanning stops on a channel which is not a Priority Channel, UHF CB Radio will continue monitoring the Priority Channel for activity while listing to the active one.

To select GS Scan Mode:

1.Press **MENU** three times, the GS setting flashes.

2.Press ▲ / ▼ to change the setting between ON and OFF.

Call Tone setting

- Press **MENU** four times, the call icon flashes.
- Press ▲ / ▼ to change the setting between 0 to 10.

Busy Channel Lockout

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

- Press **MENU** five times, the Busy icon flashes.
- Press ▲ / ▼ to change the setting between ON and OFF.

Roger Beep

- Press **MENU** six times, the roger beep icon flashes.
- Press ▲ / ▼ to change the setting between ON and OFF.

Key Beep

- Press **MENU** seven times, the key beep setting flashes.
- Press ▲ / ▼ to change the setting between ON and OFF.

Backlight Colour

- Press **MENU** eight times, the backlight colour setting flashes.
- Press ▲ / ▼ to select colour (3 colours: orange /red /green).
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100 User Programmable RX Channels

The unit has 100 receive only channels (Ch81 to Ch180) which can be programmed with frequencies ranging from 400-520MHz (in 12.5kHz steps). The extra RX channels only appear, as part of the CB channel bank, when a frequency has b een programmed to a channel. There are two ways to programme RX channels:

- If you know the frequency you may manually programme it to a channel.
- Store a Police or Fire (& Ambulance) frequency to a channel.

Manually Programme a RX Channel

In CB channel (UHF CB channel):

- Press and hold MENU. the lowest available empty RX channel will flash;
- Press ▲ / ▼ if you wish to select another RX channel;
- Press SQ to begin the frequency edit. The MHZ digit range flashes. Use MENU to shift between MHZ range (between 400-520MHz) & kHz range (in 12.5kHz steps);
- Press ▲ / ▼ to select the desired frequency within MHz & kHz ranges.

When finished press SQ. The channel flashes to enable selection for programming of next channel if desired.

Store a Police or Fire frequency to a RX channel

Select the Police or Fire (& Ambulance) channels group by pressing CTCSS/DCS, and then select a desired frequency using ▲ / ▼ .

Or during SCAN, when scan stops on a Police or Fire (& Ambulance) frequency which you wish to store press MENU to stay on that frequency.

Press and hold MENU. the lowest available empty RX channel will appear, alternating with the selected Police and Fire (& Ambulance) frequency.

Change the RX channel using ▲ / ▼ if desired.

Channel Table

Channel Number	Frequency (MHZ)	Channel Number	Frequency (MHZ)	Channel Number	Frequency (MHZ)
1*	476.4250	28	477.1000	55	476.7875
2*	476.4500	29	477.1250	56	476.8125
3*	476.4750	30	477.1500	57	476.8375
4*	476.5000	31*	477.1750	58	476.8625
5*	476.5250	32*	477.2000	59	476.8875
6*	476.5500	33*	477.2250	60	476.9125
7*	476.5750	34*	477.2500	61++	–
8*	476.6000	35*	477.2750	62++	–
9	476.6250	36*	477.3000	63++	–
10	476.6500	37*	477.3250	64	477.0125
11	476.6750	38*	477.3500	65	477.0375
12	476.7000	39	477.3750	66	477.0625
13	476.7250	40	477.4000	67	477.0875
14	476.7500	41*	476.4375	68	477.1125
15	476.7750	42*	476.4625	69	477.1375
16	476.8000	43*	476.4875	70	477.1625
17	476.8250	44*	476.5125	71*	477.1875
18	476.8500	45*	476.5375	72*	477.2125
19	476.8750	46*	476.5625	73*	477.2375
20	476.9000	47*	476.5875	74*	477.2625
21	476.9250	48*	476.6125	75*	477.2875
22+	476.9500	49	476.6375	76*	477.3125
23+	476.9750	50	476.6625	77*	477.3375
24	477.0000	51	476.6875	78*	477.3625
25	477.0250	52	476.7125	79	477.3875
26	477.0500	53	476.7375	80	477.4125
27	477.0750	54	476.7625		

* Channel 5 and 35 are for emergency calling. Please do not use these sub-channels in non-emergency cases.
+ Speech telephony is inhibited on Channel 22 and 23.
* Channel 1-8 and 31-38, 41-48 and 71-78 are used as repeater channels with 750kHz offset. Channels 1-8 and 41-48 are used for mobile reception and channels 31-38 and 71-78 for mobile transmission.
  Only use this repeater function when a long distance communication via the local repeater facility is specifically required. Unless it is necessary, to avoid operation on locally used repeater input channels (channels 31 to 38 and channels 71 to 78) or locally used repeater receiving channels (channels 1 to 8 and channels 41 to 48) is recommended.
++ Channel 61, 62 and 63 are reserved for future use. They cannot be activated until approved by the ACMA CBRS Class Licence in Australia.

CTCSS Frequency Table

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

DCS Codes Table

Channel Number	Octal Code	Channel Number	Octal Code	Channel Number	Octal Code
1	023	36	223	71	445
2	025	37	225	72	446
3	026	38	226	73	452
4	031	39	243	74	454
5	032	40	244	75	455
6	036	41	245	76	462
7	043	42	246	77	464
8	047	43	251	78	465
9	051	44	252	79	466
10	053	45	255	80	503
11	054	46	261	81	506
12	065	47	263	82	516
13	071	48	265	83	523
14	072	49	266	84	526
15	073	50	271	85	532
16	074	51	274	86	546
17	114	52	306	87	565
18	115	53	311	88	606
19	116	54	315	89	612
20	122	55	325	90	624
21	125	56	331	91	627
22	131	57	332	92	631
23	132	58	343	93	632
24	134	59	346	94	654
25	143	60	351	95	662
26	145	61	356	96	664
27	152	62	364	97	703
28	155	63	365	98	712
29	156	64	371	99	723
30	162	65	411	100	731
31	165	66	412	101	732
32	172	67	413	102	734
33	174	68	423	103	743
34	205	69	431	104	754
35	212	70	432		