



# TX680

3 watt handheld UHF CB radio



INSTRUCTION MANUAL

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## ACCESSORIES SUPPLIED

- Li-Ion Battery Pack (1000 mAh)
- AC Adapter
- Semi-Quick Charger
- Carry Case

## WARNING - SAFETY INFORMATION

The TX680 is a radio transmitting device.

- When transmitting, keep the antenna more than 25 mm from any part of the head or body.
- Do not transmit near electrical blasting equipment or in explosive atmospheres.
- Do not allow children to operate a radio transmitter unsupervised.

## IMPORTANT

**READ ALL INSTRUCTIONS** carefully and completely before operating your radio and retain this manual for future reference.

**NEVER** connect the radio to a power source other than the supplied battery. This may damage your product.

**DO NOT** place your radio in front of a vehicle airbag.

**DO NOT** use your radio with a damaged antenna.

**DO NOT** attempt to modify your radio in any way.

**ALWAYS** charge your radio at normal room temperature.

**ALWAYS** switch off your radio where notices restrict the use of two-way radio or mobile telephones.

**ONLY** use GME approved rechargeable batteries with the supplied charger.

**AVOID** exposing your radio to water. It is not waterproof.

**AVOID** storing or charging your radio in direct sunlight.

**AVOID** storing or using your radio where temperatures are below  $-20^{\circ}\text{C}$  or above  $+60^{\circ}\text{C}$ .

## IMPORTANT INFORMATION CONCERNING UHF CB RADIO

The use of the Citizen Band radio service is licensed in Australia by the ACMA Radiocommunications (Citizens Band Radio Stations) Class Licence and in New Zealand by the Ministry of Economic Development New Zealand (MED). A General User Radio Licence for Citizens Band radio and operation is subject to conditions contained in those licences.

The class licence for users and equipment operating in the CB/PRS 477 MHz band has been amended. This radio meets the new 80 channel standard.

In simple terms the same amount of spectrum is available; however, radio transceivers can now operate in a narrower bandwidth and hence use less spectrum. These radios are generally referred to as narrowband or 12.5 kHz radios. By using 12.5 kHz channel spacing instead of 25 kHz, the 40 channels originally allocated can now be expanded to 80 channels thereby doubling the channel capacity and relieving congestion in the UHF CB/PRS band.

Original 40 channel wideband Radios will continue to operate on the original 40 channels, however they will not be able to converse on the newer channels 41 – 80. The newer narrowband radios will be able to converse with all older 40 channel wideband radios on all channels 1 to 40 as well as the newer channels allocated from 41 to 80.

The mixing of narrowband and wideband radios in the same spectrum can cause some possible operating issues of interference and varying levels of received volume.

## **POSSIBLE ISSUES**

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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 best performance.

When an older wideband radio receives a signal from a new narrowband radio, the speech may sound quiet - simply adjust your radio volume for best performance.

Depending on how close your receiving radio is to another transmitting radio, there can be interference from the transmitting radio if it is using a channel adjacent to the channel you are listening to. Simply try going up or down a few channels from the currently selected channel.

The above situations are not a fault of the radio but a symptom of operating wideband and narrowband radios in the same bandwidth. This possible

interference will decrease over time as the population of wideband radios ages and decreases.

Further information and updates are available from the Australian Communications and Media Authority (ACMA) at [www.acma.gov.au](http://www.acma.gov.au) and the Ministry of Economic Development (MED), Radio Spectrum Management at: [www.rsm.govt.nz](http://www.rsm.govt.nz)

The ACMA has allocated channels 5/35 for emergency use only. Channel 5 is the primary Simplex Emergency Channel. Where a Channel 5 repeater is available, you should select Duplex on CH 5.

**NOTE:** Channel 35 is the input channel for the Channel 5 repeater therefore Channel 35 should also not be used for anything other than emergency transmissions.

## TELEMETRY CHANNELS

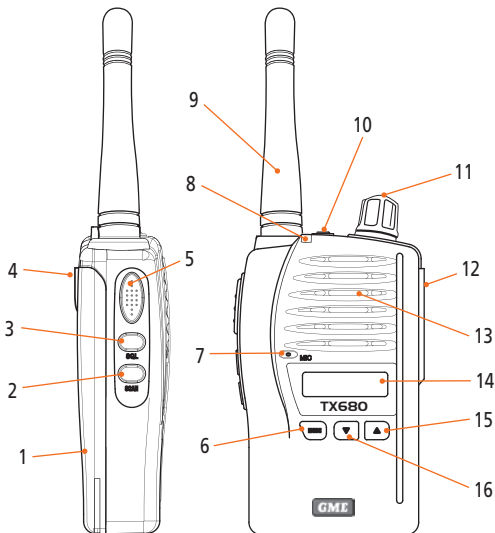
ACMA regulations have allocated channels 22 and 23 for telemetry only applications and have prohibited the transmission of speech on these channels. Consequently the TX680 has a transmit-inhibit applied to channels 22 and 23.

In the event that additional telemetry/telecommand channels are approved by the ACMA, these channels shall be added to those currently listed where voice transmission is inhibited. Currently transmissions on channels 61, 62 and 63 are also inhibited and these channels are reserved for future allocation.

## FEATURES

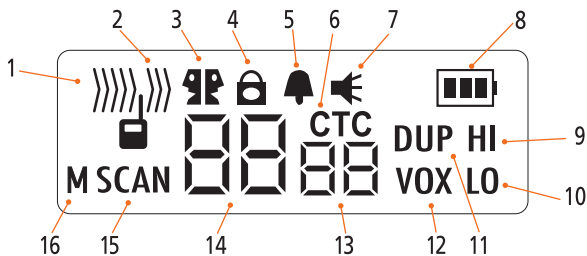
- **Microprocessor Controlled Frequency Synthesiser:** Allows user programmable control of scanning, channel memories and selected feature options.
- **Programmable Scan Function:** Scans up to 80 UHF CB channels.
- **In-built CTCSS:** User selectable Continuous Tone Coded Squelch system for quiet channel operation.
- **3 watt/1 watt RF Power:** When transmitting in close range you can conserve battery power by using the Low Power setting.
- **Individually Programmable Duplex Function:** User selectable for those individual repeater channels in your area.
- **Power-Save Feature:** Sleeps during periods of inactivity.
- **Keypad Lock:** Prevents accidental button presses.
- **Backlit LCD:** For night viewing.
- **Calling Tone/Roger Beep:** Alerts you to incoming calls.
- **Dual Watch:** Monitors two channels simultaneously.
- **VOX:** Voice activated transmit for hands free operation.
- **Removable Flexible Antenna**
- **Semi-Quick Charger**
- **Signal Strength Indicator**

## CONTROLS



1. Battery
2. Scan
3. Squelch/CTCSS Key
4. Battery Release Clip
5. Push-To-Talk (PTT) Switch
6. Mode Key
7. Microphone
8. Indicator LED
9. Antenna
10. Duplex/Keylock Button
11. Volume On/Off
12. External Speaker/Mic
13. Speaker
14. LCD Display
15. Channel Up
16. Channel Down

## LCD INDICATORS



- 1. Receiver Busy Icon:** Appears when receiving.
- 2. Transmit Icon:** Appears when transmitting.
- 3. Dual Watch Icon:** Appears when the Dual Watch mode is Active.
- 4. Key Lock Icon:** Appears when the keypad is locked.
- 5. Button Beep Tone Icon:** Appears when the button beep confirmation tone is selected.
- 6. CTCSS (CTC) Icon:** Indicates that CTCSS tones are enabled on the selected channel.
- 7. Squelch/Monitor Icon:** Appears when the Monitor function is activated. (Squelch is open)
- 8. Battery Level Icon:** Indicates battery charge level. Flashes when battery is almost empty.
- 9. High Power Icon:** Appears when High transmitter power is selected.
- 10. Low Power Icon:** Appears when Low transmitter power is selected.
- 11. Duplex Icon:** Indicates that Duplex communication has been enabled.
- 12. Voice Activated Transmission (VOX) Icon:** Appears when the VOX mode is activated.
- 13. CTCSS Tone:** Displays the selected CTCSS tone (from 00 - 38) on the selected channel.
- 14. Channel Display:** Indicates the channel number in use.
- 15. Scan Indicator Icon:** Appears when SCAN is enabled and the radio is scanning.
- 16. Channel Memory Indicator:** Appears when selected channel is stored in Scan Memory.

## POWERING THE RADIO

Your TX680 is powered by a 7.4 Volt 1000 mAh Li-Ion battery pack. When the battery pack is new, it should be fully charged before being used for the first time. If left unused, your TX680's battery pack will discharge itself within a few months. If you have not used your TX680 for some time, you will need to recharge the battery pack before use.

**WARNING:** Use only the approved GME charger. The use of other types may be dangerous and will void the warranty.

### Fitting the Battery Pack

To fit the battery pack:

1. Locate the bottom of the battery pack into the two slots in the base of the radio frame.
2. Press the top of the battery pack in to place against the radio until it 'clicks'.

### To Remove the Battery Pack

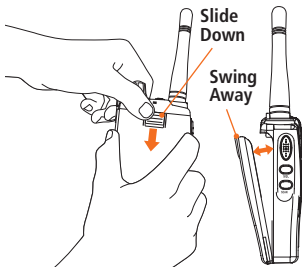
1. Slide the battery retaining clip downward while pulling the top of the battery away from the radio.
2. Lift the battery pack upward to clear the slots at the bottom of the radio.

### Charging the Battery Pack

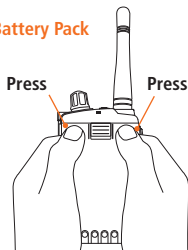
Your TX680 is supplied with an AC adaptor and a Semi-quick charger. The charger will charge a fully discharged 1000 mAh battery pack to full capacity in around 3-4 hours.

1. Plug the charger into a standard 240 Volt AC outlet.
2. Plug the lead from the charger into the charging cradle.
3. Place the TX680 into the cradle. The Red LED will light to indicate the battery is charging.
4. When the battery has charged, the LED will change to Green.

### To Remove Battery Pack



### To Refit Battery Pack





## **Battery Low Alert**

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When the battery icon blinks on the display, the battery level is low and the battery pack should be recharged. If the battery is not charged, an audio tone will then sound to warn the user that the battery is almost discharged.

## **Battery Usage**

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The time taken to discharge the battery pack will depend on how you use the TX680. The 1000 mAh battery pack supplied is powerful enough for a full days use under average conditions.

## **Conserving Battery Power**

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The TX680 has built-in power saving features to help you get the maximum amount of time between charges from your Li-Ion battery pack. If you need to operate your TX680 in a situation where you require maximum battery life (e.g. a remote site where there is no convenient recharging facility nearby) the following hints can greatly reduce the amount of power drawn from the battery pack.

## **Standby Mode**

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The TX680 will automatically enter the 'Standby' mode when it is inactive (i.e. not transmitting or receiving signals). While in Standby mode it will still check for incoming signals but it will draw considerably less power from the battery pack. As soon as a signal is heard or the keys are pressed the TX680 will 'wake up' again. This Standby mode is automatic

and by itself can extend the battery life by many hours.

## **Using CTCSS**

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If you are expecting to receive signals on a busy channel, you can program that channel for CTCSS operation and get the other person to call you using the same CTCSS tone. Your radio will then remain in Standby and ignore all other signals until your selected CTCSS tone is received.

## **Scanning**

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The TX680 draws more power from the battery pack when scanning than when monitoring a single channel. This is because it must 'wake up' more often to monitor each channel for activity. You can squeeze that extra bit of life from the battery pack by avoiding any unnecessary scanning. In addition, scanning increases the chance of finding a signal thereby keeping the receiver 'awake' and the squelch open more often.

## **Low Transmit Power Settings**

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The transmitter has both high and low power settings. If you are only operating over short distances, are in a reasonably high location or are close to a local repeater, try using the Low transmitter power setting. This reduces the transmitter power from 3 watts to 1 watt effectively doubling the talk time available.

## GENERAL OPERATION

### POWER ON/OFF

Rotate the Volume control clockwise past the 'click' to turn the radio on. Rotate the control counter-clockwise past the click to turn the radio off again.


### ADJUSTING THE VOLUME

With the unit powered on, rotate the Volume control clockwise to increase the volume and counter-clockwise to decrease the volume.


### DISPLAY LIGHTING

The LCD backlighting activates automatically whenever a key is pressed and turns off automatically after about 5 seconds.

### RECEIVING SIGNALS

While the TX680 is not receiving signals, it will remain in the Standby mode to conserve battery power. When a signal is received, the LED indicator on the upper edge of the radio will light Green and the  icon will appear on the display. Adjust the **volume** control for a comfortable listening level.

If the incoming signal is encoded with a CTCSS tone that matches the one set in your radio, the LED indicator will light Orange and you will be able to hear the signal in the speaker.


If the LED indicator lights Green and the  icon appears but you cannot hear the signal, it is likely that your radio has

CTCSS enabled and the incoming signal is not using your selected CTCSS tone (see Mode Settings for more details on CTCSS settings).


If no further signals are received, the unit will return to standby mode.

### TRANSMITTING

To transmit, press and hold the **Push-To-Talk (PTT)** switch. The other radio you are talking to must be set to the same channel (and CTCSS code if applicable). Hold the TX680 approximately 5 to 8 cms from your face with the antenna vertical and speak into the built-in microphone.

While the **PTT** switch is pressed, the LED indicator on the upper edge of the radio will light RED and the  icon will appear on the LCD.

When you have finished speaking, release the **PTT** switch to receive incoming signals (it is not possible to transmit and receive at the same time). If no further signals are received, the unit will revert to standby mode.

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**TIP:** The PTT switch can also be used to transmit a Call Alarm melody. When the Call Alarm melody is enabled (see Mode settings for more details on the Call Alarm settings), pressing the PTT switch twice quickly will call another party on the same channel and play the Call Alarm melody in their radio's speaker. When this happens, the  icon will appear and the LED indicator will light RED for about 5

seconds. The call alarm can only be sent once per minute.

## SELECTING CHANNELS


In the 'Standby' mode, press the ▲ key to step up one channel or the ▼ key to step down one channel.

Press and hold the ▲ or ▼ keys to quickly scroll through the channels.

## SQL KEY

The **SQL** key is a dual function key that controls both the Squelch and CTCSS

### Squelch

To open the squelch, briefly press the **SQL** key. This will allow you to check the current channel for activity before transmitting, particularly if you have CTCSS enabled. When the squelch is open, the LED indicator on the upper edge of the radio will light Green, the  icon will appear on the display and you will hear static or hiss if the channel is clear. Do not transmit if you hear any conversations. Briefly press the **SQL** key again to close the squelch.

## CTCSS

Press and hold the **SQL** key to activate or deactivate CTCSS. When activated, the 'CTC' icon will appear on the display, along with the selected CTCSS code.

**NOTE:** To activate or deactivate CTCSS, the current channel must have a CTCSS code selected via the **MODE** key (See **MODE** key settings for more details).

## DUPLEX/MONITOR KEY

The **Duplex/Monitor** key is a dual function key that controls both the Duplex and Monitor functions.

### DUP Key

Press this button to select Duplex mode on channels 1 – 8 and 41 – 48. Duplex can be enabled or disabled separately on individual channels.

Duplex operation allows the TX680 to transmit on a different frequency to that which it receives. This allows operation through repeater stations in your area. Repeaters automatically re-transmit your signal over a much wider area, providing greatly increased range. The Duplex mode only works on channels 1 – 8 and 41 – 48. With Duplex selected, your TX680 actually transmits 30 channels higher than it receives.

### To Activate the Duplex Mode

Select a duplex channel (1 – 8 or 41 – 48). Briefly press the **DUP** button to toggle duplex on or off on that channel. When Duplex mode is enabled on the selected channel, 'DUP' appears on the display.

Channel Selected	Receive Channel	Transmit Channel
1	1	31
2	2	32
3	3	33
4	4	34
5*	5*	35*
6	6	36
7	7	37
8	8	38
41	41	71
42	42	72
43	43	73
44	44	74
45	45	75
46	46	76
47	47	77
48	48	78

\* Emergency channel only

## SCAN KEY

The **SCAN** key is a dual function key that controls both Scan and Memory Functions

### Scanning Function

Channel Scanning allows you to monitor selected channels automatically for incoming signals. While the radio is scanning, the **MODE** setting key is disabled.

## To Select Channels for Scanning

1. Press the ▲ or ▼ keys to select the required channel.
2. Press and hold the **SCAN** key until the radio beeps. 'M' will appear on the display indicating the selected channel is now stored in the Scan Memory.
3. Repeat to store further channels into the Scan Memory.
4. To remove a channel from the Scan Group, press and hold the **SCAN** key again. 'M' will disappear from the display.

## To Scan the Selected Channels

Briefly press the **SCAN** key. 'SCAN' will be displayed and the radio will show rapidly changing channel numbers as it scans through the channels. While scanning, briefly press the ▲ or ▼ keys to select the scan direction.

To exit the scan mode, briefly press the **SCAN** key again. The TX680 will return to normal operation and 'SCAN' will disappear from the display.


**NOTE:** Must be at least 2 channels in Scan Memory otherwise the radio will not scan.


## Scanning Features


- If a signal is received, the scan is paused, allowing you to transmit and receive on that channel. The radio will automatically resume scanning a few seconds after the last reception or transmission.
- Press the **PTT** switch while the unit is scanning to jump to the home channel (the home channel is the channel the Radio was on at the time scanning was activated). You can then transmit and receive on that channel. The radio will automatically resume scanning a few seconds after the last reception or transmission.
- When the unit has stopped on a busy channel, press the **▲** or **▼** keys to 'Skip' over the busy channel and continue scanning.

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TIP: The scan mode will reduce the overall battery life because the Standby (battery saver) feature is overridden. You should avoid scanning if the battery is running low and you need to conserve power.  
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## KEY-LOCK FUNCTION

The **Key-Lock** function disables the keys to prevent accidental key presses from changing the preferred settings of the radio. When the keys are locked, the  icon is displayed and all key presses are ignored except for the PTT and Key-Lock functions.


To activate the Key-Lock, press and hold the **DUP** button for about 2 seconds. The  icon will appear on the display.

To cancel the Key-Lock, press and hold the **DUP** button again. The  icon will disappear from the display.

## MODE KEY

The **MODE** key is used to set the various feature settings of the TX680. The following chart shows the order of these selections.

### Standby Mode:

- 
1. CTCSS Code Selection
  2. Transmitter Power
  3. VOX Settings
  4. Dual Watch Channel
  5. Button Beep Selection
  6. Call Alarm Selection

## 1. CTCSS CODE SELECTION

The Continuous Tone Coded Squelch System (CTCSS) is a squelch quieting system that allows groups of users to share the same channel without disturbing each other. It uses 1 of 38 low frequency tones to open and close the squelch on the radio. The CTCSS codes do not prevent others from hearing your transmission. They simply provide you with a quieter channel by preventing you from hearing transmissions that are not using the same code as you and are therefore not directed at you.

**NOTE:** To communicate with other UHF radios using CTCSS, all radios you wish to communicate with must be switched to the same channel and have the same CTCSS code selected. If you wish to receive signals from UHF radios that are not using CTCSS you will need to either disable CTCSS on that channel or set the CTCSS code to 'oF' as described below.

### To Select a CTCSS Code

From the Standby mode:

1. Select the required channel using the ▲ or ▼ keys.
2. Press the **MODE** key ONCE to select the CTCSS setting mode. 'CTC' will flash on the display.
3. Press the ▲ or ▼ keys to select the required CTCSS code. (A list of available codes is shown in the chart at the end of this manual).

**NOTE:** To turn CTCSS off on this channel, set the CTCSS code to 'oF'.

4. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your selection.

### To Activate CTCSS on the Radio

1. Select a channel that has a CTCSS code selected.
2. Press and hold the **SQL** key for about 2 seconds. The 'CTC' icon and CTCSS code will appear on the display. CTCSS is now enabled on ALL channels that have CTCSS codes selected.

### To Deactivate CTCSS on the Radio

1. Select a CTCSS enabled channel using the ▲ or ▼ keys. The 'CTC' icon and CTCSS code will be displayed on that channel.
2. Press and hold the **SQL** key for about 2 seconds. The 'CTC' icon and CTCSS code will disappear from the display indicating CTCSS is no longer activated.

**NOTE:** CTCSS is only enabled on those channels with CTCSS codes selected. All other channels will continue to operate normally.

## 2. TRANSMITTER POWER

The transmitter power can be set to High (3 watts) or Low (1 watt). The power setting applies to all channels

### To Set the Transmit Power

From the Standby mode:

1. Press the **MODE** key TWICE to select the power setting mode. 'Po' will be displayed and HI or LO will be flashing on the display.
2. Press the ▲ or ▼ keys to select the required power setting. Select HI for high power or LO for low power.
3. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your selection.

The TX680 should now display the selected channel number along with HI or LO to indicate the transmit power you have set.

### 3. VOX SETTINGS

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The VOX feature lets you have hands free conversations. When you speak, the microphone automatically detects your voice (or other nearby sound) causing the radio to transmit without the need to press the **PTT** switch.

#### To Set Radio for VOX Operation

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From the Standby mode:

1. Press the **MODE** key THREE times to select the VOX setting mode. 'VOX' will flash on the display.
2. Press the ▲ or ▼ keys to select the sensitivity from 1 (minimum) to 7 (maximum). The minimum setting requires a louder voice to activate the VOX. The maximum setting will activate the VOX with a much softer voice.
3. To disable the VOX completely, set the VOX sensitivity to 'oF'
4. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your selection. When the 'VOX' is enabled, 'VOX' is visible on the display.

### 4. DUAL WATCH SETTINGS

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The Dual Watch mode lets you to monitor two channels at the same time. While in dual watch mode, the unit will monitor both the currently selected channel and a second dual watch channel.


#### To Set the Dual Watch Mode

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From the Standby mode:

1. Press the **MODE** key FOUR times to select the Dual Watch setting mode.

The  icon will flash on the display.

2. Press the ▲ or ▼ keys to select the Dual Watch channel number (1 – 40). To disable the Dual Watch Mode altogether select 'oF'.
3. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your Dual Watch channel selection.  will be displayed at the top of the LCD and the display will now alternate between the currently selected channel and the dual watch channel.

To EXIT the Dual Watch mode, turn the radio off, or momentarily press the **SCAN** key. This is equivalent to setting the DW mode to 'oF'.

#### Dual Watch Operation

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- If a signal is received on the Dual Watch channel, the radio will pause on that channel for as long as it remains busy, then resume the Dual Watch 5 seconds after the last transmission has ceased.
- If you wish to talk on the busy channel, press the **PTT** switch while the radio is locked onto that channel then talk in the usual way.
- If you wish to talk on the selected channel, press the **PTT** switch while no signals are being received. The radio will switch to the selected channel.

## 5. BUTTON BEEP TONE SETTINGS



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The Button beep tone feature allows the Radio to sound a confirmation tone whenever the **SQL, SCAN, MODE, ▲, ▼** or **DUP** keys are pressed.

### To Turn the Button Beeps Tones On or Off

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From the Standby mode:

1. Press the **MODE** key FIVE times to select the Button Beep setting mode. 'bP' will be displayed along with a flashing  icon.
2. Press the **▲** or **▼** keys to set the beep to 'On' or 'oF' as desired.
3. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your selection. If the Button Beep function is on, the  icon will remain steady on the display and a beep will be heard in response to key activations.

## 6. CALL ALARM SELECTION

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The TX680 provides 5 user selectable call alarm melodies to alert other users to your incoming call. When enabled, the melody can be transmitted to another user where it will be heard in the speaker of the receiving radio.

## To Select your Favourite Call Alarm Melody

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From the Standby mode:

1. Press the **MODE** key SIX times to select the Call Alarm setting mode. 'C' will be displayed.
2. Press the **▲** or **▼** keys to preview (listen) to the 5 available call melodies.
3. To turn the call melodies off, select 'oF'.
4. Press and hold the **MODE** key (or press the **PTT** key momentarily) to confirm and store your selection.

### To Send the Call Alarm Melody

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Press the **PTT** switch twice quickly. The LED indicator will light Red for a few seconds as the melody is sent. The melody will be heard in the speaker of the receiving radio.

The call alarm can only be sent once per minute.



## CTCSS TONE FREQUENCIES

No.	Frequency	No.	Frequency	No.	Frequency
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	71.9	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	OF	0

(CTCSS frequency shown in Hz)

## UHF CB OPERATING FREQUENCIES

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	476.425~	21	476.925
2	476.450~	22#	476.950
3	476.475~	23#	476.975
4	476.500~	24	477.000
5*	476.525~	25	477.025
6	476.550~	26	477.050
7	476.575~	27	477.075
8	476.600~	28	477.100
9	476.625	29	477.125
10	476.650	30	477.150
11+	476.675	31	477.175~
12	476.700	32	477.200~
13	476.725	33	477.225~
14	476.750	34	477.250~
15	476.775	35*	477.275~
16	476.800	36	477.300~
17	476.825	37	477.325~
18	476.850	38	477.350~
19	476.875	39	477.375
20	476.900	40^	477.400

\* Emergency use only

+ Officially designated call channel

# Telecommand/Selcall use only. Voice transmission is inhibited as required by AS/NZS 4365:2011.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
41	476.4375~	61•	476.9375
42	476.4625~	62•	476.9625
43	476.4875~	63•	476.9875
44	476.5125~	64	477.0125
45	476.5375~	65	477.0375
46	476.5625~	66	477.0625
47	476.5875~	67	477.0875
48	476.6125~	68	477.1125
49	476.6375	69	477.1375
50	476.6625	70	477.1625
51	476.6875	71	477.1875~
52	476.7125	72	477.2125~
53	476.7375	73	477.2375~
54	476.7625	74	477.2625~
55	476.7875	75	477.2875~
56	476.8125	76	477.3125~
57	476.8375	77	477.3375~
58	476.8625	78	477.3625~
59	476.8875	79	477.3875
60	476.9125	80	477.4125

^ Road channel

~ Repeater channels

- Guard band channels. Voice transmission is inhibited as required by AS/NZS 4365:2011.

## SPECIFICATIONS

### GENERAL:

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<b>Frequency Range:</b>	476.425 - 477.400 MHz
<b>Channel Spacing:</b>	12.5 kHz
<b>CTCSS Codes:</b>	38
<b>Dimensions (W x H x D):</b>	62 mm x 98 mm x 30 mm (without antenna)

### POWER SUPPLY:

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<b>Power Source:</b>	Li-Ion rechargeable - 7.4 V DC, 1000 mAh
<b>Operating Time:</b>	10 Hours (High Power), (Transmit 5%, Receive 5%, Standby 90%)

### RECEIVER:

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<b>Usable Sensitivity:</b>	-121 dBm
<b>Maximum Audio Output:</b>	>0.3 watt max. (8 Ohm)
<b>Modulation Distortion:</b>	<5% (1 kHz 70%)

### TRANSMITTER:

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<b>RF Output Power:</b>	Low: 1 watt High: 3 watts.
<b>Maximum Deviation:</b>	2.5 kHz.
<b>Modulation Distortion:</b>	<5% (1 kHz. 70%)

.....  
Specifications are typical unless otherwise indicated and may be subject to change without  
notice or obligation.  
.....

## STANDARD COMMUNICATIONS WARRANTY AGAINST DEFECTS

This warranty against defects is given by Standard Communications Pty Ltd ACN 000 346 814 (We, us, our or GME). Our contact details are set out in clause 2.7.

### 1. Consumer guarantees

- 1.1 Our goods 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 for 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.
- 1.2 To the extent we are able, we exclude all other conditions, warranties and obligations which would otherwise be implied.

### 2. Warranty against defects

- 2.1 This Warranty is in addition to and does not limit, exclude or restrict your rights under the Competition and Consumer Act 2010 (Australia) or any other mandatory protection laws that may apply.
- 2.2 We warrant our goods to be free from defects in materials and workmanship for the warranty period (see warranty table) from the date of original sale (or another period we agree to in writing). Subject to our obligations under clause 1.2, we will at our option, either repair or replace goods

which we are satisfied are defective. We warrant any replacement parts for the remainder of the period of warranty for the goods into which they are incorporated.

- 2.3 To the extent permitted by law, our sole liability for breach of a condition, warranty or other obligation implied by law is limited
- (a) in the case of goods we supply, to any one of the following as we decide -
    - (i) the replacement of the goods or the supply of equivalent goods;
    - (ii) the repair of the goods;
    - (iii) the cost of repairing the goods or of acquiring equivalent goods;
  - (b) in the case of services we supply, to any one of the following as we decide –
    - (i) the supplying of the services again;
    - (ii) the cost of having the services supplied again.
- 2.4 For repairs outside the warranty period, we warrant our repairs to be free from defects in materials and workmanship for three months from the date of the original repair. We agree to re-repair or replace (at our option) any materials or workmanship which we are satisfied are defective.

- 2.5 We warrant that we will perform services with reasonable care and skill and agree to investigate any complaint regarding our services made in good faith. If we are satisfied that the complaint is justified, and as our sole liability to you under this warranty (to the extent permitted at law), we agree to supply those services again at no extra charge to you.
- 2.6 To make a warranty claim you must before the end of the applicable warranty period (see warranty table), at your own cost, return the goods you allege are defective, provide written details of the defect, and give us an original or copy of the sales invoice or some other evidence showing details of the transaction.
- 2.7 Send your claim to:  
Standard Communications Pty Ltd. Unit B, 22-24 College Street, Gladesville, NSW 2111, Australia.  
Telephone: (02) 9879 8888  
Fax: (02) 9816 4722.  
Email: servadmin@gme.net.au
- 2.8 If we determine that your goods are defective, we will pay for the cost of returning the repaired or replaced goods to you, and reimburse you for your reasonable expenses of sending your warranty claim to us.

### 3. What this warranty does not cover

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- 3.1 This warranty will not apply in relation to:
- (a) goods modified or altered in any way;
  - (b) defects and damage caused by use with non Standard Communications products;
  - (c) repairs performed other than by our authorised representative;
  - (d) defects or damage resulting from misuse, accident, impact or neglect;
  - (e) goods improperly installed or used in a manner contrary to the relevant instruction manual; or
  - (f) goods where the serial number has been removed or made illegal.

### 4. Warranty period

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- 4.1 We provide the following warranty on GME and Kingray products. No repair or replacement during the warranty period will renew or extend the warranty period past the period from original date of purchase.

PRODUCT TYPE	WARRANTY PERIOD
477 MHz UHF CB portable transceivers	1 year





**1300 463 463**    **gme.net.au**

A division of Standard Communications Pty Ltd.

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