GME TX670TP

2 watt handheld UHF CB radio

INSTRUCTION MANUAL

CONTENTS

ACCESSORIES

SUPPLIED

- 2 x TX670 2/1 watt UHF handheld radios with flexible antenna
- 2 x 3.6 V Ni-MH rechargable battery packs
- 240 V AC adapter
- Instruction manual

OPTIONAL

- Speaker microphone
- Hands-free ear microphone
- Neck lanyard
- Vehicle cigarette lighter trickle charger.
- Leather case

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°C or above +60°C.

WARNING - SAFETY INFORMATION

The TX670 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 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 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

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** and the Ministry of Economic Development (MED), Radio Spectrum Management at: **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.
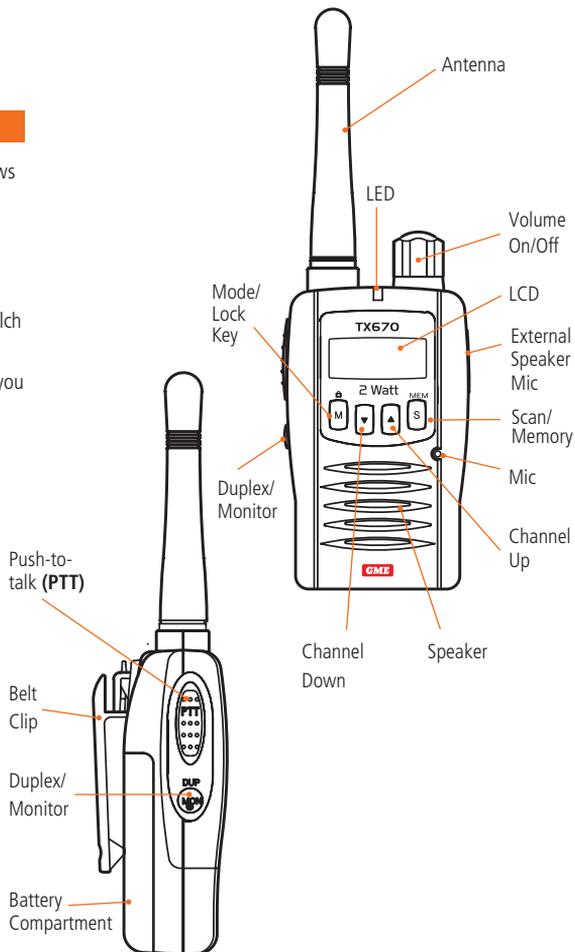
TELEMETRY CHANNELS

ACMA regulations have allocated channels 22 and 23 for telemetry only applications and have prohibited the transmission of speech on these channels. Consequently the TX670 has a transmit-inhibit applied to channels 22 and 23.
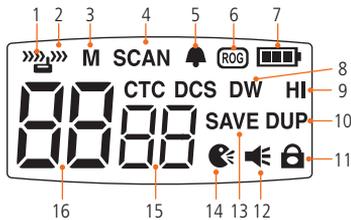
In the event that additional telemetry/telecommand channels are approved by the ACMA, these channels shall be added to those currently listed where voice transmission is inhibited. Currently transmissions on channels 61, 62 and 63 are also inhibited and these channels are reserved for future allocation.

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.

- **2 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.

RADIO CONTROLS

Antenna

LED

Volume On/Off

Mode/ Lock Key

LCD

TX670

External Speaker Mic

2 Watt

Scan/ Memory

Mic

Duplex/ Monitor

Channel Up

GME

Push-to-talk **(PTT)**

Channel Down

Speaker

Belt Clip

PTT

Duplex/ Monitor

DUP MON

Battery Compartment

LCD DISPLAY

1. **Receiver Busy Icon:** Appears when receiving.

2. **Transmit Icon:** Appears when transmitting.

3. **Memory Icon:** Appears when the selected channel is stored in the Scan memory.

4. **Scan Indicator Icon:** Appears when SCAN is enabled and the radio is scanning.

5. **Button Beep Tone Icon:** Appears when the button beep confirmation tone is selected.

6. **Roger-Beep Tone Icon:** Appears when the Roger-Beep tone is enabled.

7. **Battery Level Icon:** Indicates battery charge level. Flashes when battery is almost empty.

8. **Dual Watch Icon:** Appears when Dual Watch mode is active.

9. **High Power Icon:** Appears when High transmitter power is selected.

10. **Duplex Icon:** Indicates that Duplex communication has been enabled.

11. **Key-Lock Icon:** Appears when the keypad is locked.

12. **Monitor Icon:** Appears when Monitor function is activated.

13. **Power Save Icon:** Appears when the radio is in the power save mode.

14. **Voice Activated Transmission (VOX) Icon:** Appears when the VOX mode is activated.

15. **CTCSS Tone:** Displays the selected CTCSS tone (from 00 – 38) on the selected channel.

16. **Channel Display:** Indicates the channel number in use.

Your TX670 is powered by a Ni-MH rechargeable battery pack. If left unused, the batteries will discharge within a few months. If you have not used your TX670 for some time, you will need to recharge your battery pack before use.

Installing the Batteries

Battery installation is more convenient when the belt clip is removed. To do this, release the spring clip and slide the belt clip downward and away from the radio body.

1. Press the centre-top area of the battery cover and slide downwards.

2. Install the rechargeable battery pack in the direction indicated on the pack until it 'clicks' into place.

3. Replace the battery cover and belt clip.

Spring Clip

Belt Clip

Battery Cover

This side faces up
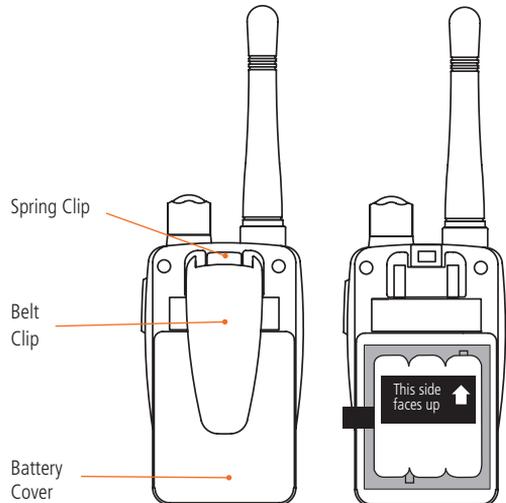
Charging the Batteries

Your TX670s are supplied with an AC adapter and semi-quick charger that will recharge a fully discharged 1500 mAh battery pack to full capacity in around 6-7 hours. The semi-quick charger is capable of charging 2 radios at once.

1. Plug the AC adapter into a standard 240 volt AC outlet.

2. Plug the lead from the AC adapter into the charging cradle.

3. Place the TX670s into the cradle. The associated LED will light RED to indicate the batteries are charging.

3. When the batteries have charged, the LED will change to GREEN.

Battery Low Alert

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

Battery Usage

The time taken to discharge the batteries will depend on how you use the TX670. The 1500 mAh battery pack supplied is powerful enough for a full days use under average conditions.

Conserving Battery Power

The TX670 has built-in power saving features to help you get the maximum amount of time between charges. If you need to operate your TX670 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 batteries.

Standby Mode

The TX670 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 batteries. As soon as a signal is heard or the keys are pressed the TX670 will 'wake up' again. This

Standby mode is automatic and by itself can extend the battery life by many hours.

Using CTCSS

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

The TX670 draws more power from the batteries 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 lengthen the battery life 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

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 2 watts to 1 watt effectively doubling the talk time available.

<div style="background:orange;color:white;text-align:right;font-weight:bold">GENERAL OPERATION</div>

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 TX670 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 TX670 approximately 5 to 8 cm 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 to revert to Standby mode.

. . . .
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.
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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 TX670 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 TX670 actually transmits 30 channels higher than it receives.

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

To switch between Simplex and Duplex modes, select a duplex channel (1 – 8, 41 – 48) then briefly press the **DUP** button. When Duplex mode is selected, 'DUP' appears on the display on that channel.

MON Key

To open the Squelch, press and hold the **MON** 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. Press and hold the **MON** key again to close the Squelch.

CTCSS

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).

SCAN/MEMORY KEY

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

Scanning Function

Channel Scanning allows you to monitor channels that have been included in the active scan list. The active scan list includes all channels which display the icon '**M**' on the LCD.

To enable channel scanning, 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 Scan mode, briefly press the **SCAN** key again. The TX670 will return to normal operation and 'SCAN' will disappear from the display.

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.

TIP: The Scan mode will reduce the overall battery life because the Standby (battery saver) feature is overridden. You should avoid scanning if the batteries are running low and you need to conserve power.

Memory Function

The Memory function enables and disables the current channel to be memorised into the scanning list. When the channel is memorised with the 'M' icon on the LCD, scanning will include the channel. When the channel is deleted from the scanning list, the channel will be skipped upon scanning. All channels are saved to Memory during manufacture. To add or remove a channel from the Memory, press and hold the **SCAN/MEM** key.

MODE/KEY-LOCK KEY

Mode Function

The **MODE** key is used to set the various feature settings of the TX670. 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. Squelch Settings
- 6. Roger Beep Tone Selection
- 7. Button Beep Tone Selection
- 8. Call Alarm Selection

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 **MODE** button for about 2 seconds. The 🔒 icon will appear on the display.

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

Selecting Channels

In the '**Standby**' mode, press the ▲ or ▼ key to step **up/down** one channel. Press and **hold** the ▲ or ▼ keys to **quickly** scroll **up/down** through the channels.

In '**Mode edit**' mode, press the ▲ or ▼ key to step **upwards or downwards** through the selected mode settings.

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 in the following 'note'.

To Select a CTCSS Code

From the '**Standby**' mode:

1. Select the required channel using the ▲ or ▼ keys.

2. Press the **MODE** key ONCE (1) 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 on page 12).

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

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

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 (2 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 (2) 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 the **MODE** or **PTT** key momentarily to confirm and store your selection.

The TX670 should now display the selected channel number along with 'HI' if you have selected high power. If you have selected low power, this setting will not be indicated.

3. VOX SETTINGS

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

From the '**Standby**' mode:

1 Press the **MODE** key THREE (3) 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 3 (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 the **MODE** or **PTT** key momentarily to confirm and store your selection. When the VOX is enabled, 'VOX' is visible on the display.

4. DUAL WATCH SETTINGS

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

From the '**Standby**' mode:

1. Press the **MODE** key FOUR (4) times to select the Dual Watch setting mode. The 'DW' 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 the **MODE** or **PTT** key momentarily to confirm and store your Dual Watch channel selection 'DW' 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, momentarily press the **SCAN** key. This is equivalent to setting the Dual Watch Mode to 'oF'.

Dual Watch Operation

- If a signal is received on the Dual Watch channel, the radios will pause on that channel for as long as it remains busy, then resume the Dual Watch five (5) seconds after the last transmission has ceased.

- If you wish to talk on the busy channel, press the **PTT** switch while the radios are 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 radios will switch to the selected channel.

5. SQUELCH SETTINGS

The 'Squelch' mode lets you adjust the receiving sensitivity. The higher the Squelch level is set, the stronger the signal needs to be for it to be received by the radios.

To Set the 'Squelch' Mode

1. Press the **MODE** key FIVE (5) times to select the Squelch setting mode, 'Sq_n' will be displayed.

2. Press the ▲ or ▼ keys to select the Squelch level from 01 (lowest) to 03 (highest) setting.

3. Press the **MODE** or **PTT** key momentarily to confirm and store your Squelch mode selection.

6. ROGER BEEP TONE SELECTION

The Roger Beep is a tone which is automatically transmitted whenever the **PTT** switch is released. This tone alerts the receiving party that your transmission has ended.

To Enable or Disable the Roger Beep Tone

From the '**Standby**' mode:

1. Press the **MODE** key SIX (6) times to select the Roger Beep setting mode. 'Rb' will be displayed along with a flashing 🔘.

2. Press the ▲ or ▼ keys to set the beep to 'On' or 'oF' as desired.

3. Press the **MODE** or **PTT** key momentarily to confirm and store your selection. If the Roger Beep function is on, the 🔘 icon will remain steady on the display.

7. BUTTON BEEP TONE SELECTION

The Button Beep tone feature allows the radios to sound a confirmation tone whenever the **MON, SCAN, MODE**, ▲ or ▼ keys are pressed.

To Turn the Button Beep Tones On or Off

From the '**Standby**' mode:

1. Press the **MODE** key SEVEN (7) 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 the **MODE** or **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 activation.

8. CALL ALARM SELECTION

The TX670 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 our Favourite Call Alarm Melody

From the '**Standby**' mode:

1. Press the **MODE** key EIGHT (8) 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 the **MODE** or **PTT** key momentarily to confirm and store your selection.

To Send the Call Alarm Melody

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.

CTCSS TONE FREQUENCIES			
No.	Frequency	No.	Frequency
1	67.0	20	131.8
2	71.9	21	136.5
3	74.4	22	141.3
4	77.0	23	146.2
5	79.7	24	151.4
6	82.5	25	156.7
7	85.4	26	162.2
8	88.5	27	167.9
9	91.5	28	173.8
10	94.8	29	179.9
11	97.4	30	186.2
12	100.0	31	192.8
13	103.5	32	203.5
14	107.2	33	210.7
15	110.9	34	218.1
16	114.8	35	225.7
17	118.8	36	233.6
18	123.0	37	241.8
19	127.3	38	250.3
(CTCSS frequency shown in Hz)			

UHF CB OPERATING FREQUENCIES							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	476.425~	21	476.925	41	476.4375~	61•	476.9375
2	476.450~	22#	476.950	42	476.4625~	62•	476.9625
3	476.475~	23#	476.975	43	476.4875~	63•	476.9875
4	476.500~	24	477.000	44	476.5125~	64	477.0125
5*	476.525~	25	477.025	45	476.5375~	65	477.0375
6	476.550~	26	477.050	46	476.5625~	66	477.0625
7	476.575~	27	477.075	47	476.5875~	67	477.0875
8	476.600~	28	477.100	48	476.6125~	68	477.1125
9	476.625	29	477.125	49	476.6375	69	477.1375
10	476.650	30	477.150	50	476.6625	70	477.1625
11+	476.675	31	477.175~	51	476.6875	71	477.1875~
12	476.700	32	477.200~	52	476.7125	72	477.2125~
13	476.725	33	477.225~	53	476.7375	73	477.2375~
14	476.750	34	477.250~	54	476.7625	74	477.2625~
15	476.775	35*	477.275~	55	476.7875	75	477.2875~
16	476.800	36	477.300~	56	476.8125	76	477.3125~
17	476.825	37	477.325~	57	476.8375	77	477.3375~
18	476.850	38	477.350~	58	476.8625	78	477.3625~
19	476.875	39	477.375	59	476.8875	79	477.3875
20	476.900	40^	477.400	60	476.9125	80	477.4125

* Emergency use only
+ Officially designated call channel
# Telecommand/Selcall use only. Voice transmission is inhibited as required by AS/NZS 4365:2011.

^ Road channel
~ Repeater channels
• Guard band channels. Voice transmission is inhibited as required by AS/NZS 4365:2011.

GENERAL

Frequency Range:	476.425 - 477.4125 MHz
Channel Spacing:	12.5 kHz
No. of Channels:	80
	(75 Voice, 2 Telemetry-RX only, 3 for future use)
CTCSS Codes:	38
Dimensions (W x H x D):	62 mm x 98 mm x 30 mm (without antenna)
Complies with:	AS/NZS4365:2011

POWER SUPPLY

Power Source:	Ni-MH rechargeable battery pack 3.6 V 1500 mAh.
Operating Time:	10 Hours (High Power) (Transmit 5%, Receive 5%, Standby 90%)

RECEIVER

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

TRANSMITTER

RF Output Power:	Low: 1 watt
High:	2 watts
Maximum Deviation:	2.5 kHz.
Modulation Distortion:	<5% (1 kHz. 70%)

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

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

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;

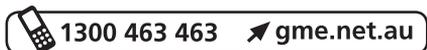(e) goods improperly installed or used in a manner contrary to the relevant instruction manual; or

(f) goods where the serial number has been removed or made illegal.

4. Warranty period

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