

# TX3220 COMPACT UHF RADIO



PRI

CHANNEL

TX3220

SQL

BUSY

DUP

M

SCAN

VOLUME

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# THE FOLLOWING ITEMS ARE INCLUDED WITH YOUR TX3220

- TX3220 Radio
- Microphone
- Mounting Cradle
  Instruction Manual
- Microphone Clip
- DC Lead

Screw Pack

If any items are missing or damaged, please contect your retailer or place of purchase.

# INTRODUCTION

Your GME TX3220 radio is Australian designed and built and is one of the most advanced UHF Citizen Band radios available.

The TX3220 combines the very latest in electronic hardware with the most up-to-date computer aided design and manufacturing techniques to produce an extremely compact mobile radio with outstanding specifications and performance.

The TX3220's small size means it can be mounted in almost any convenient location and its strong diecast aluminium chassis makes it the most robust radio of its kind. With just two rotary controls and four touch keys, the TX3220 is the easiest to operate UHF radio in our range.

# **EMERGENCY CHANNELS**

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 TX3220 has a transmit inhibit applied to channels 22 and 23.

# **FEATURES**

- Microprocessor Controlled Frequency Synthesiser: Allows user programmable control of scanning, channel memories and selected feature options.
- Permanent Memory: Retains all user settings in non volatile memory even when the power has been removed.
- Programmable Scan Function: Scans up to 40 user programmable channels with a choice of either Group or Open scan functions available (user selectable).
- Individually Programmable DUPLEX function: User selectable for only those individual channels in your area that have repeaters, leaving the others free for use as extra simplex channels.
- Priority Channel: A user programmable priority channel feature allows your working or local repeater channel to be instantly recalled at the press of a button.

- High Contrast Liquid Crystal Display: Fully detailed LCD provides a visual indication of the selected channel and all selected functions at a glance. Backlit for viewing at night.
- CTCSS: A built-in Continuous Tone Coded Squelch System provides quiet channel operation.
- Overvoltage Protection: Special overvoltage detection circuitry protects the radio and warns of excessive voltage conditions by flashing the display.

FRONT PANEL CONTROLS

- Surface Mount Technology: The very latest surface mount component types, design and assembly techniques and guality control procedures are used to ensure the highest performance and reliability.
- Designed and Manufactured in Australia: The TX3220 has been totally designed and manufactured in Gladesville NSW to meet the demanding needs of the Australian community.

# **OPERATION**



#### VOLUME

Rotate the Volume control clockwise past the 'click' to turn the TX3220 ON. Adjust the volume control for a comfortable listening level.

If no sound is heard, temporarily unmute the radio by briefly pressing the SQL key. You can now adjust the volume by listening to the receiver's background noise. When finished, briefly press the SQL key again to re-mute the radio.

# BACKLIGHTING

The Liquid Crystal Display and function keys are backlit for easy viewing at night or in low light situations. The back lighting is on at all times while the TX3220 is turned ON.

# SELECTING CHANNELS

Select the required channel by rotating the Channel selector knob. Rotate the knob clockwise to select higher channels and counter-clockwise to select lower channels. The selected channel is displayed on the LCD.

# SQUELCH

The Squelch is used to eliminate any annoying background noise whenever there are no signals present. The Squelch can be opened or closed with the SOL key. When the Squelch is open, the receiver's background noise can be heard and 'BUSY' is displayed. When the Squelch is closed, the receiver remains quiet while there are no signals present but any incoming signals will override the Squelch and be heard in the speaker.

# To Open the Squelch

Briefly press the SQL key. A low beep with be heard. If there are no signals present you will hear the receiver's background noise.

#### To Close the Squelch

Briefly press the SQL key again. A high beep will be heard and the receiver will become guiet.

# Adjusting the Squelch level

The TX3220's default squelch level has been factory set to provide optimum performance under most operating conditions, but can be adjusted to suit changing conditions if required.

# To adjust the Squelch level

First press and hold the SQL key while rotating the channel selector knob. 'BUSY' will flash indicating the TX3220 is now in the Squelch Edit mode (you can now release the SQL key). Continue rotating the channel selector knob clockwise or counter-clockwise to select the required Squelch level. (1-9).

A level of 1 will allow the Squelch to open on very weak signals, whereas a level of 9 requires reasonably strong signals to overcome the Squelch. The default level is 2.

#### To exit and save the current Squelch level:

Press and **hold** the **SQL** key for 1.5 seconds (or simply wait 5 seconds for the Edit mode to time-out).

# DUPLEX SWITCH

Duplex operation allows the TX3220 to transmit on a different frequency to that which it receives. This allows operation through any repeater stations in your area. Repeaters automatically re-transmit your signal over a wider area, providing greatly increased range.

The Duplex function operates only on channels 1-8. When Duplex is selected on one of these channels, the TX3220 receives on that channel but actually transmits 30 channels higher.

#### e.g.

Channel Selected	1	2	3	4	5*	6	7	8
<b>Receive Channel</b>	1	2	3	4	5*	6	7	8
Transmit Channel	31	32	33	34	35*	36	37	38

\* Emergency Channel only

The TX3220 allows you to select Duplex operation on individual channels. This is particularly useful in country areas where there may only be one or two repeaters. Then unused repeater channels can be used for normal simplex or direct radio-to-radio communications.

#### To select Duplex on individual channels

- 1. Select the required channel 1-8.
- 2. Briefly press the **DUP** key. 'DUP' will appear on the display accompanied by a high beep.

# To remove Duplex from a channel

- 1. Select the required channel 1-8. 'DUP' will be visible on the display.
- 2. Briefly press the **DUP** key. 'DUP' will disappear from the display accompanied by a low beep.

#### PRIORITY CHANNEL

The Priority Channel feature allows you to store one of the 40 channels in the TX3220 as a priority channel that can be instantly recalled at the press of a key. This can be used to provide instant access to your working channel or your local repeater channel.

#### To store a Priority channel

- 1. Select the required channel.
- Press and hold the PRI key. The channel display will flash for a moment then a high beep will be heard as the selected channel is stored.

# To recall a Priority channel

Briefly press the **PRI** key. The TX3220 will immediately switch to the Priority Channel accompanied by a high beep.

#### SCANNING

The TX3220 has a Scan function that allows groups of user programmable channels to be scanned for activity. Channels are scanned at a rate of 20 channels per second. If a busy channel is found, scanning will pause to allow the signal to be heard. Once the channel has been clear for 5 seconds, scanning will resume automatically.

#### Scan Groups

The TX3220 has two available Scan groups - Open Scan and Group Scan.

**Open Scan** allows any of the channels to be scanned for activity in an ascending sequence. If a busy channel is found, the scan will pause to allow the signal to be heard. Once the channel has been clear for 5 seconds scanning will resume automatically.

e.g. Scanning channels 1-40 in Open Scan

Group Scan allows you to transmit and receive normally on your Priority channel but between breaks in the conversation the radio will scan and listen to several other channels ONLY WHILE THERE ARE NO SIGNALS ON THE PRIORITY CHANNEL. Signals received on the Priority Channel will have priority over those received on the other channels.

1 - 2 - 3 - 4 - 20 - 5 - 6 - 7 - 8 - 20

e.g. Scanning channels 1-8 with priority channel 20 in Group Scan

#### Selecting a Scan Group

#### To select between Open or Group Scan:

- 1. Switch the TX3220 OFF.
- 2. Press and hold the **SCAN** key while switching the TX3220 **ON**.
- Release the SCAN key. The currently selected scan group will be displayed as 'OS' for Open Scan or 'GS' for Group Scan.

Rotate the **channel selector** clockwise or counterclockwise to change the scan group.

**To exit and return to normal operation:** Switch the TX3220 **OFF**, then **ON** again.

#### **Programming Open Scan Memories**

#### To add or remove channels from the scan memory:

- 1. Check that the radio is not already scanning. If it is, briefly press the **SCAN** key to cancel the scan function.
- 2. Select the required channel using the rotary channel selector.
  - If 'M' is displayed to the upper left of the channel number, the selected channel is presently in the scan memory. It can be removed by holding the **SCAN** key in until a low beep is heard. 'M' will then disappear indicating the channel is no longer in memory.
  - If 'M' is not visible to the upper left of the channel number, then the selected channel is not in the memory. To add it, hold the SCAN key in until a high beep is heard. 'M' will now appear to the upper left of the channel number.
- 3. Repeat step 2 to add or remove other channels in the scan memory.

#### To scan the selected channels:

Briefly press the **SCAN** key. A high beep will be heard, 'SCAN' will appear in the display and the radio will begin scanning.

**Note:** If there are less than 2 channels programmed in the open scan memory when you press the **SCAN** key, a low beep will be heard and the command will be ignored.

#### To Scan in Open Scan Mode:

If a busy channel is found, scanning will pause on that channel to allow the signal to be heard and will remain there for as long as the channel remains busy.

- To skip over a busy channel, briefly press the **SCAN** key twice.
- To talk on a busy channel while in Scan mode simply press the PTT (Push-To-Talk) button on the microphone. When you have finished transmitting and the channel has remained silent for 5 seconds scanning will resume automatically.
- To cancel the Scan, briefly press the SCAN key. A low beep will be heard and 'SCAN' will disappear from the display. The radio will return to the last selected channel.

#### **Programming Group Scan Memories**

The Group Scan feature uses your priority channel as the working channel. The rest of the channels you wish to scan are programmed into the scan memory.

#### To program your Priority Channel:

- 1. Select the required channel.
- 2. Press and **hold** the **PRI** key. The channel display will flash for a moment then a high beep will be heard as the selected channel is stored.

#### To program your scan channels:

- 1. Check that the TX3220 is not already scanning. If it is, press the **SCAN** key to cancel the scan function.
- 2. Select the required channel using the rotary channel selector switch.
  - If 'M' is displayed to the upper left of the channel number, the selected channel is presently in the scan memory. It can be removed by **holding** the **SCAN** key in until a low beep is heard. 'M' will then disappear indicating the channel is no longer in memory.
  - If 'M' is not visible to the upper left of the channel number, then the selected channel is not in the memory. To add it, **hold** the **SCAN** key in until a high beep is heard. 'M' will now appear to the upper left of the channel number.
- 3. Repeat step 2 to add or remove other channels in the scan memory.

#### To scan the selected Group Scan channels:

Briefly press the **SCAN** key. A high beep will be heard, 'SCAN' will appear in the display and the radio will begin scanning.

**Note:** If there are no channels programmed in the group scan memory when you press the **SCAN** key, a low beep will be heard and the command will be ignored.

# Scanning in Group Scan Mode.

The Group Scan feature scans all the channels programmed into the scan memory, with the priority channel being scanned after every fourth channel.

- If a signal is heard on a scan channel, the receiver will 'lock' onto it and remain there for as long as the channel is busy, and for 5 seconds after the channel has cleared, as long as there are no signals on the Priority Channel. During this time the receiver will continue to check the Priority Channel for signals every 2 seconds, resulting in a series of small 'breaks' in the reception of the 'locked' channel. If no signals are heard after 5 seconds, the radio will resume scanning.
- If a signal appears on the Priority Channel at any time (even when locked on a scan channel) the receiver will switch straight to the Priority Channel and will stay there for as long as the channel is busy. During this time you can transmit on the Priority Channel in the usual way. Once there has been no activity on the Priority Channel for 5 seconds, the radio will resume scanning the other channels.
- To skip over a busy channel, briefly press the **SCAN** key twice.
- To talk on the Priority (working) Channel while in Scan mode simply press the **PTT** button on the microphone. When you have finished your conversation and there has been no further activity on the Priority Channel for 5 seconds, the radio will resume scanning the other channels.
- To exit directly to the Priority Channel, press the **PRI** key. Scan will be cancelled.
- To hold onto a busy scan channel, briefly press the SCAN key while the channel is busy. The radio will exit the Scan mode and will remain on that channel. Press SCAN again to continue scanning.
- To cancel the Scan mode, briefly press the SCAN key. A low beep will be heard and 'SCAN' will disappear from the display. If the radio was on a busy channel it will remain on that channel, otherwise it will return to the priority channel.

Note: The radio will not scan if the Squelch is open.

# TIME-OUT TIMER

The TX3220 has a built-in time-out timer which automatically disables the transmitter if the **PTT** switch is pressed for too long. This feature prevents the channel from being blocked for long periods should your push-totalk switch become jammed or pressed accidentally. The time-out period is set to two minutes by default, but can be changed or even disabled by your retailer.

# CTCSS

CTCSS (Continuous Tone Coded Squelch System) is a squelch quieting system that uses one of 50 preset subaudible (very low frequency) tones to open and close the squelch on your radio. The system applies a continuous low level tone to your transmission, and a matching tone decoder to your receiver's squelch. When CTCSS is enabled, the channel remains quiet until someone transmits using the selected tone. When the transmission ends, the channel becomes quiet again. By using different tones, several groups of people can share the same channel without disturbing each other.

Your TX3220 allows CTCSS to be enabled or disabled on individual channels. In addition, the CTCSS tone frequency used is user programmable.

When CTCSS is first enabled, it must be set up as follows:

# To enable CTCSS on your radio

Use the following procedure:

- 1. Switch the TX3220 **OFF** at the volume control.
- Press and hold the SQL while turning the radio ON again. 'SILENT' and 'BUSY' will be flashing to indicate you are now setting the receive tone. The channel number will now correspond to one of 50 different CTCSS tones as shown in the table below. The factory default is 00 (Tone Off).
- To select the desired receive CTCSS tone, rotate the channel selector until the required tone number is displayed.
- 4. Press and **hold** the **SQL** key. The display will flash and a high beep will be heard as the receive tone is stored.

**Note:** Adjusting the receiver CTCSS tone automatically sets the transmit CTCSS tone to the same frequency. If a different transmit CTCSS tone is required, continue with step 5 below, otherwise go to step 7.

 Now briefly press the SQL key to select the desired CTCSS transmit tone. 'SILENT' and 'TX' will flash. Note the default transmit tone will be the same as the receive tone you set in step 3 above.

- 6. If a different transmit tone is required, select it using the channel selector. Press and hold the SQL key to store the tone.
- 7. Now switch the radio OFF then ON again to return to normal operation.

Note: To disable the sending or receiving of CTCSS tones, set either tone to 00. If both transmit and receive tones are set to 00, the CTCSS function is disabled and can not be selected.

# To enable the CTCSS function on a channel

- 1. Select the required channel.
- 2. Press and hold the **SQL** key until a high beep is heard. 'SILENT' will be displayed.

You may activate CTCSS on as many channels as you wish except channels 1-8 (CTCSS is automatically disabled on repeater channels and the emergency channel 5 where ACMA regulations require that CTCSS be disabled).

# To de-activate CTCSS

Repeat the steps above. A low beep will be heard and 'SILENT' will disappear.

# **Optional Microphone MC503B**



CICSS TONE FREQUENCY CHART							
Tone No.	Frequency Hz.	Tone No.	Frequency Hz.	Tone No.	Frequency Hz.	Tone No.	Frequency Hz.
00	0	13	100.0	26	156.7	39	196.6
01	67.0	14	103.5	27	159.8	40	199.5
02	69.4	15	107.2	28	162.2	41	203.5
03	71.9	16	110.9	29	165.5	42	206.5
04	74.4	17	114.8	30	167.9	43	210.7
05	77.0	18	118.8	31	171.3	44	218.1
06	79.7	19	123.0	32	173.8	45	225.7
07	82.5	20	127.3	33	177.3	46	229.1
08	85.4	21	131.8	34	179.9	47	233.6
09	88.5	22	136.5	35	183.5	48	241.8
10	91.5	23	141.3	36	186.2	49	250.3
11	94.8	24	146.2	37	189.9	50	254.1
12	97.4	25	151.4	38	192.8		

# CTCCC TONE EDEOUENCY CUADT

# INSTALLATION

The TX3220 is supplied with a slim, slide-on mounting 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 internal speaker, we recommend the cradle be mounted above the radio to minimise any obstruction of the speaker.

#### **Console Mounting**

A flush mounting DIN adapter **MBD001** is available as an optional accessory. The adapter includes mounting brackets and a specially designed front panel escutcheon to suit most vehicle installations. See your nearest GME retailer for details.

#### When installing the cradle

Avoid mounting close to heaters or air conditioners. Screw the mounting cradle to a firm surface and slide the TX3220 into the cradle from the front until it clicks into place. Finally, connect the power lead and antenna cable to the sockets provided at the rear of the radio.

# Mounting the Cradle



# Din Adapter MBD001



# Fitting the Radio

Slide radio fully into cradle until it clicks into place.



# **Removing the Radio**



# Fitting the Microphone

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



- 1. Position the microphone plug so the plastic tab faces downwards, and press the plug into the socket until it 'clicks'.
- Gently press the rubber strain relief into the hole surrounding the socket so that the slot around the strain relief fits neatly inside the lip of the hole.

# **Removing the Microphone**

- Squeeze the rubber strain relief near the front panel to disengage the slot, and slide the strain relief back along the microphone cord.
- Squeeze the plastic tab on the microphone plug towards the plug to unlock it while gently pulling the plug outwards. If the plug does not come out easily, the tab has not released correctly and should be squeezed again.

# DC POWER CONNECTION

The TX3220 is designed for 13.8 Volt DC, negative earth installations only (i.e. where the negative terminal of the battery is connected to the chassis or frame of the vehicle).

There are two recommended methods of installation.

# Radio remains ON when the ignition switch is OFF

Connect the radio's negative (black) lead to the vehicle's chassis, or if preferred, directly to the battery's negative terminal. The radio's positive (red) lead should be connected via the 2 Amp fuse to the battery's positive terminal. Alternatively, the positive lead could be connected into the fuse box at a point that has +13.8 Volts continuously available (on the battery side of the ignition switch) via the 2 Amp fuse.

# Radio turns ON and OFF with the ignition switch

Connect the radio's negative (black) lead to the vehicle's chassis, or if preferred, directly to the battery's negative terminal.

The radio's positive (red) lead should connect to an accessory point in the vehicle's fuse box via the 2 Amp fuse.







This point should supply +13.8 Volts only when the ignition switch is turned ON or in the ACCESSORY position via the 2 Amp fuse.

# HIGH VOLTAGE WARNING

The TX3220 has a built-in, high voltage detection system to warn you if an overvoltage situation occurs.

If the power supply voltage exceeds 18 Volts DC, the channel display will flash 'hi dc' for 5 seconds when the unit is first turned on, or at the time the voltage exceeds 18 Volts. In addition, when transmitting, the TX indicator will flash and the transmitter will select low output power.

If the overvoltage warning appears you should switch your TX3220 OFF and disconnect it from the power source, before locating the cause of the trouble.

Once the High Voltage warning has been triggered, and you have fixed to source of the problem, you will need to switch the TX3220 OFF then ON again to reset it.

The power source must not exceed 30 Volts.

# ANTENNA CONNECTION

GME supply a wide range of mobile and base station antennas designed specifically for UHF CB communications.

The antennas are fitted with a **PL259** coaxial plug suitable for connection to the antenna socket on the rear panel of the radio.

# REPEATERS

A repeater system consists of a linked transmitter/receiver combination installed in a prominent location. The repeater is designed to receive signals on a designated channel and re-transmit them on another channel.

Repeaters are usually located on hills, mountains or tall buildings. The increased elevation greatly improves the range of the repeater beyond that of a normal base or mobile. This means that the repeaters are able to receive and retransmit signals to radios that would otherwise be out of range of each other.

Normally, UHF radios transmit and receive on the same channel. This is known as SIMPLEX operation. However, to communicate through repeaters, your radio must be able to transmit and receive on different channels (known as DUPLEX). Your TX3220 has a Duplex key to allow you to operate through repeaters.

The Duplex function only operates on channels 1-8, as these are the channels that have been designated for repeater use. When Duplex mode is selected, your TX3220 receives on the selected channel (e.g. channel 1) but automatically transmits 30 channels higher (i.e. channel 31). The UHF repeater receives your signal on Channel 31 and retransmits it on channel 1 for others to hear

#### Simplex/Duplex Range Comparison



Channel	Frequency	Usage		Channel	Frequency	Usage	
01	476.425	Repeater	(1) RX	21	476.925	Simplex	
02	476.450	Repeater	(2) RX	22	476.950	Telemetry Use (RX) Only	
03	476.475	Repeater	(3) RX	23	476.975	Telemetry Use (RX) Only	
04	476.500	Repeater	(4) RX	24	477.000	Simplex	
05	476.525	* Emergency Call	(5) RX	25	477.025	Simplex	
06	476.550	Repeater	(6) RX	26	477.050	Simplex	
07	476.575	Repeater	(7) RX	27	477.075	Simplex	
08	476.600	Repeater	(8) RX	28	477.100	Simplex	
09	476.625	Simplex		29	477.125	Simplex	
10	476.650	Simplex		30	477.150	Simplex	
11	476.675	# General Calling		31	477.175	Repeater	(1) TX
12	476.700	Simplex		32	477.200	Repeater	(2) TX
13	476.725	Simplex		33	477.225	Repeater	(3) TX
14	476.750	Simplex		34	477.250	Repeater	(4) TX
15	476.775	Simplex		35	477.275	* Repeater	(5) TX
16	476.800	Simplex		36	477.300	Repeater	(6) TX
17	476.825	Simplex		37	477.325	Repeater	(7) TX
18	476.850	Simplex		38	477.350	Repeater	(8) TX
19	476.875	Simplex		39	477.375	Simplex	
20	476.900	Simplex		40	477.400	+ Road Channel	

# **UHF CHANNELS AND FREQUENCIES**

# Reccomme nded channel for general calling.

+ Highway information (truckies) channel.

# **SPECIFICATIONS**

#### ELECTRICAL

General	
Compliant Specification:	Meets AS/NZS 4365 for radio communications equipment in the UHF citizen and personal radio service.
Frequency Range TX:	476.425-477.400 MHz
Number of Channels:	40
Channel Spacing:	25 kHz
Operation Mode:	Simplex or half Duplex with repeater talk around.
Scanning Speed:	50 ms per channel (20 channels per second).
Antenna Impedance:	50 Ohms nominal
Nominal Battery Voltage:	12 Volts DC
Operating Voltage Range:	10-16 Volts DC
Battery Polarity:	Negative Earth
Standard Test Voltage:	13.8 Volts DC
Over Voltage Protection:	30 Volts DC maximum. At 18 Volts DC the channel display flashes 'Hi DC' for 5 seconds on receive. The RF power is reduced and TX flashes on transmit.
Reverse Voltage Protection:	Diode Crowbar
Overcurrent Protection:	In-line 2 Amp Fuse
Operating Temperature:	-10°C to 60°C

# Transmitter

RF Output:	5 Watts
Spurious Emission:	< - 70 dBc
Frequency Error:	$< \pm$ 1.5 kHz
Modulation:	FM
Maximum Deviation:	$< \pm$ 5 kHz at + 20 dB AF limiting.
Transmit Frequency Response:	+ 6 dB per octave 300 Hz to 3 kHz + 1-3 dB.
Demodulated Audio Signal to Noise:	> 45 dB unweighted
Current Consumption:	1.7 Amps with 50 Ohm termination.

# Receiver

Intermediate Frequencies:	21.4 MHz, 450 kHz			
Sensitivity:	- 122 dBm for 12 dB SINAD unweighted			
Selectivity:	- 6 dB at + 7.5 kHz - 72 dB at ± 25 kHz			
Intermodulation Immunity:	-72 dB			
Blocking Immunity:	-98 dB			
Spurious Response Immunity:	70 dB			
Audio Output Power:	3 Watts average into 4 Ohms			
Audio Signal to Noise:	> 45 dB unweighted			
Receive Frequency Response:	- 6 dB/Octave de-emphasis 300 Hz to 3 kHz + 1-3 dB.			
Current Consumption:	< 205 mA muted 750 mA Full volume.			
Conducted Spurious Emission:	< - 70 dBm			
MECHANICAL SPECIFICATIONS & CONNECTIONS				
Dimensions:	29 (H) x 128 (L) x 117 (D) mm			
Weight:	420 grams			

s j s	j i i
12 Volt Power Supply:	Two core cable with bulkhead connector in rear panel.
Antenna:	SO239 Panel Socket
External Speaker:	3.5 mm Mono Jack
Microphone Port:	6 Way telephone style with rubber strain relief.

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

# WARRANTY

GME limit this warranty to the original purchaser of the equipment.

GME warrant the TX3220 to be free from defects in material and workmanship for a period of thirty six (36) months from the date of purchase from their authorised retailer.

GME warrant the microphone to be free from defects in material and workmanship for a period of twelve (12) months from the date of purchase from their authorised retailer.

Should the product require servicing during this period, all labour and parts used to effect repairs will be supplied free of charge. GME reserve the right to determine whether damage has been occasioned by accident, misuse or improper installation whereby the warranty would be void, including equipment which has been damaged due to:

- (a) Incorrect or reverse polarity connection to a battery or power supply or to an incorrect supply voltage.
- (b) Operation without an antenna or by connection to an antenna which has been

incorrectly installed, resulting in damage to the radio's output circuit.

- (c) Effects of water or moisture penetration.
- (d) Non-factory modifications.

Procedure to be followed by claimant: In the event of a defect occurring during the warranty period, the original purchaser may return the defective unit along with suitable proof of purchase date (i.e. receipt, docket, credit card slip etc.) and a full description of the defect to the retailer from whom the unit was purchased. All freight charges incurred for transportation by the retailer or GME are the purchaser's responsibility.

# GME AFTER SALES SERVICE

Your radio is especially designed for the environment encountered in land mobile installations. The use of all solid state circuitry, careful design and rigorous testing, result in high reliability. Should failure occur however, GME maintain a fully equipped service facility and spare parts stock to meet the customer's requirements long after expiry of the warranty period.

# 🚮 1300 463 463 🚿 gme.net.au

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