GME

TX2700

27 MHz CB RADIO

CHANNEL

VOLUME

SQUELCH

OFF

GME

AM TRANSCEIVER

TX2700

PRI DW SCAN NL DIM

INSTRUCTION MANUAL

WARNING

The TX2700 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.

INTRODUCTION

Congratulations. You have just purchased one of the most technically advanced 27 MHz radios in the world.

The GME TX2700 is a 27 MHz AM Citizens Band radio. The TX2700 has a number of enhanced features including fully user programmable Channel Scanning, Priority channel and backlit Liquid Crystal Display with dimming function.

With its compact size it can easily be installed into almost any mounting location in your motor vehicle or motor cycle.

Please read this manual thoroughly to ensure you get the best from the TX2700's features.

For users in New Zealand, South Africa or P.N.G. Please refer to amendment for local frequencies, channel allocations and licensing requirements.

CONTENTS

FEATURES

- LCD display with lamp dimming function

- Rotary Squelch Control

- Channel Scanning with Memory

- Advanced Noise Limiter (NL) circuitry

- Surface mount technology

- Provision for up to 10 private channels (GME programmable option only).

- Priority channel for CB application

ACCESSORIES SUPPLIED

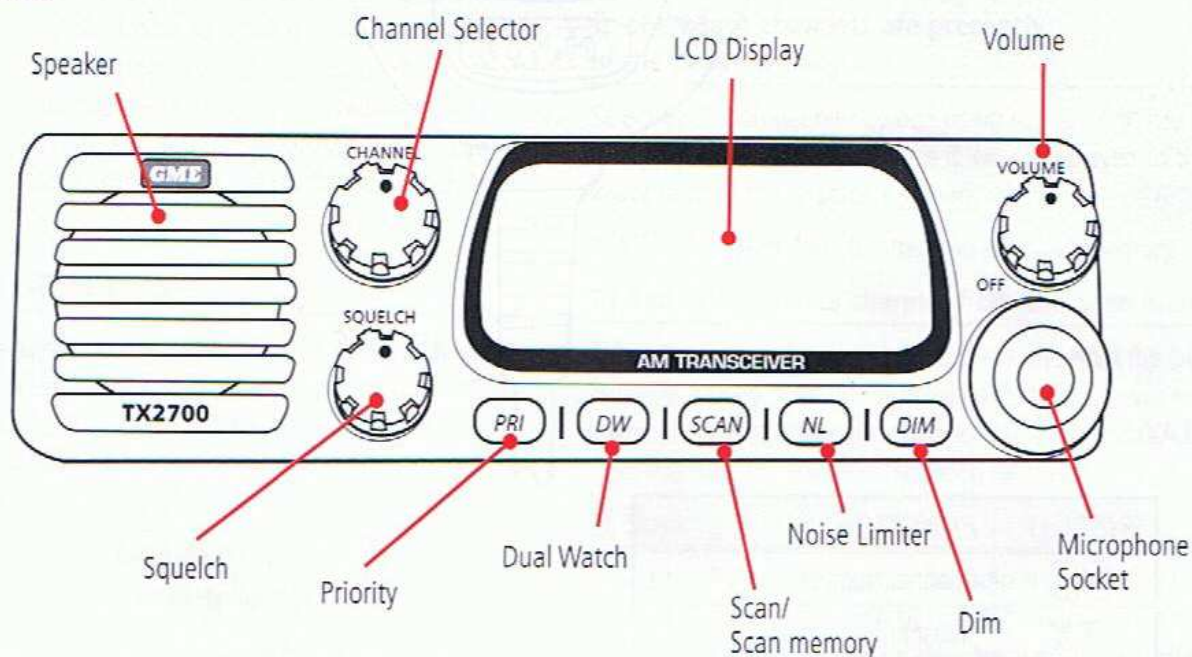- TX2700 Radio unit
- Mounting Cradle
- Instruction Manual
- Microphone
- Microphone Clip

- DC Lead
- Screw Pack

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

OPTIONAL ACCESSORIES

- MK200B Flush mounting kit

- LEM6P 4 metre microphone extension lead

CONTROLS

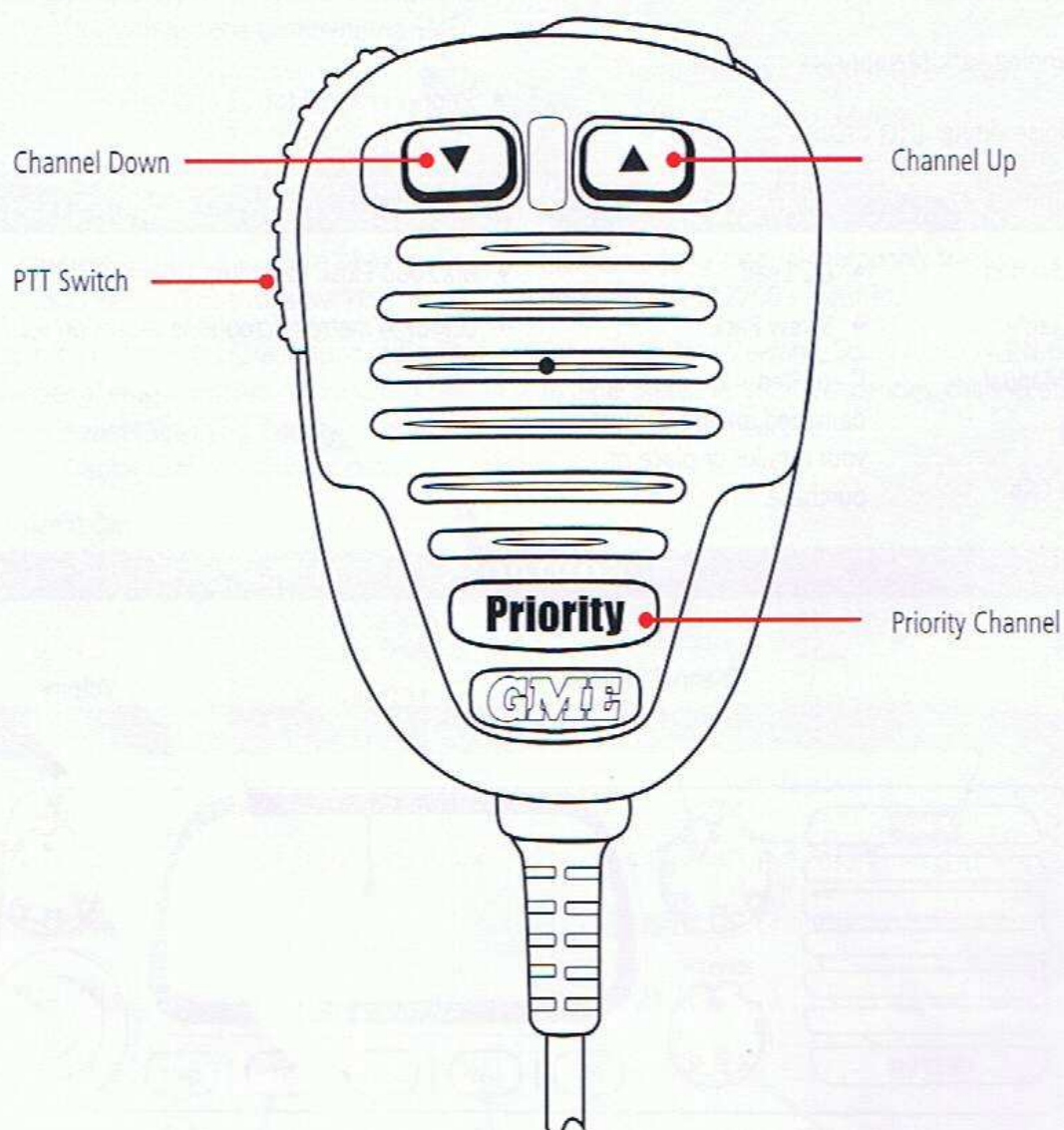**FRONT PANEL**

Speaker · Channel Selector · LCD Display · Volume · Squelch · Priority · Dual Watch · Scan/Scan memory · Noise Limiter · Dim · Microphone Socket

REAR PANEL

External Speaker Socket · Rear Mic Socket · Antenna Socket · DC Lead

MICROPHONE

Channel Down

PTT Switch

Priority

GME

Channel Up
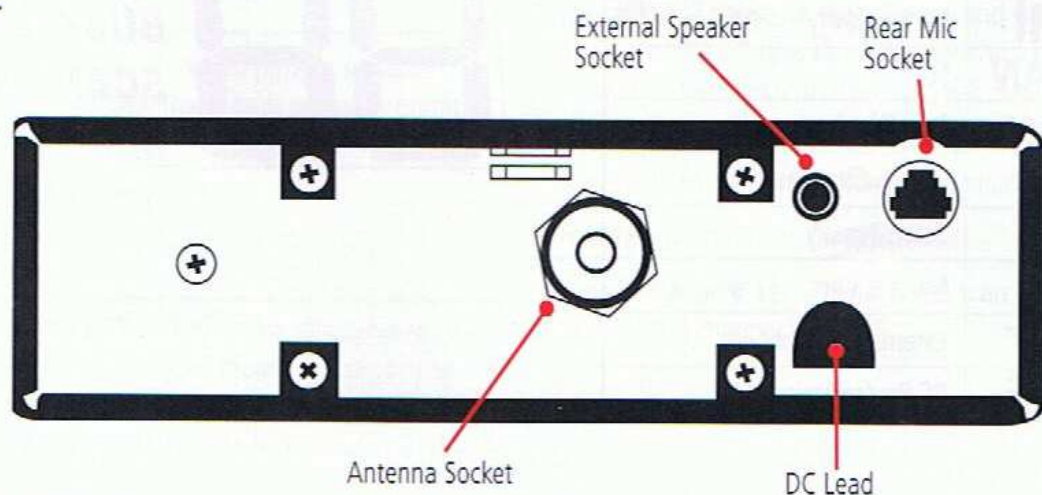
Priority Channel

DISPLAY

DISPLAY	FUNCTION
88	Channel Number
TX	Transmit Indicator
BUSY	Busy Indicator
▼ᵢ.ıll	RX Sensitivity
SCAN	Scan
DW	Dual Watch
PRI	Priority Channel
M	Scan Memory
NL	Noise Limiter
EXT	External Microphone
PRG	PC Programming

TX
BUSY
SCAN DW PRI
M NL EXT PRG

VOLUME ON/OFF

Rotate the volume control clockwise past the 'Click' to turn the TX2700 **ON**. Continue to advance the control clockwise to increase the volume. Rotate the control counter-clockwise to turn the radio **OFF**.

Note: At minimum volume setting there is still sufficient volume to be heard in a quiet cabin environment.

SQUELCH CONTROL

The Squelch control is used to eliminate the background noise when there are no signals present. To adjust the Squelch, first rotate it fully counter-clockwise until the background noise is heard, then slowly rotate it clockwise until the noise just disappears. If there are signals on the channel, you should wait until the channel is clear before adjusting the Squelch (or select a quiet channel).

Once adjusted, the receiver will remain quiet as long as there are no signals present, but an incoming signal will override the Squelch and be heard in the speaker. As the control is advanced further clockwise the Squelch threshold is progressively increased and stronger incoming signals are needed to override it. To receive very weak signals or to disable the Squelch, simply turn the control fully counter-clockwise.

CHANNEL SELECTION

Select the required channel by briefly pressing the ▲ or ▼ keys. The selected channel is displayed on the LCD display. Press and hold either key to quickly advance upwards or downwards through the channels. Release the key when the required channel is displayed or:

Select the required channel via the Rotary '**Channel Selector**'. The selected channel number is displayed on the LCD.

DISPLAY BRIGHTNESS

The LCD has two brightness levels to provide suitable lighting for day or night use. The default setting is bright.

The desired brightness level can be selected via the '**Dim**' switch located on the front panel.

TRANSMITTING

To transmit, press the **PTT** button on the microphone. Hold the microphone 2-6 cm from your mouth and slightly to one side so your voice does not project directly into the microphone. Speak at a normal voice level. Your TX2700

has a built-in speech processor which automatically controls the level of your transmitted voice. It is not necessary to raise your voice or shout into the microphone.

NOISE LIMITER

The **NL** key activates an extremely effective noise limiter circuit which helps to eliminate most electrical impulse interference caused by engine ignition systems etc. This allows clearer reception of weak signals even under noisy electrical conditions.

When the **NL** key is selected, 'NL' is displayed on the LCD.

SCANNING

The TX2700 is fitted with a Scan function that allows a group of user selected channels to be scanned for activity. Your TX2700 has a Scan memory which remembers which channels you would like to Scan. By default your TX2700 is supplied with all channels in the Scan memory.

To see which channels are presently in the Scan memory:

Select each channel one by one using the ▲ or ▼ key or rotary selector and check to see if 'M' is displayed to the lower right of the channel number.

If 'M' is displayed, the channel is in the Scan memory.

To Add or Remove a channel from the Scan memory:

Select the required channel, then press and hold the **SCAN** key until a beep is heard. If 'M' appears to the lower right of the channel number, the channel has been added to the Scan memory, otherwise it has been removed.

To Scan:

Adjust the Squelch control so the radio is quiet, then briefly press the **SCAN** key. A high beep will be heard, 'SCAN' will appear in the display and the channel numbers will change rapidly as the radio begins scanning. If a signal is found, the radio will pause on that channel and will remain there as long as the channel remains busy. Once the channel has been clear for 5 seconds, scanning will resume.

Note: You must have at least two channels programmed into the Scan memory otherwise the radio won't scan.

To change the scan direction:

Press the ▲ or ▼ key. The radio will scan in the direction of the selected channel key.

To skip over a busy channel and resume scanning:

Briefly press the ▲ or ▼ key. Scanning will resume.

To transmit on a busy channel:

Wait for a break in the conversation, then press the **PTT** switch. The radio will exit the Scan mode and stay on the channel allowing you to communicate with others on that channel.

To resume scanning briefly press the **SCAN** key again.

Note: If the **PTT** is pressed while the radio is scanning, it will be ignored and a low beep will be heard when the **PTT** is released.

To exit the Scan mode manually:

Briefly press the **SCAN** key. 'SCAN' will disappear from the display.

Note: Excessive noise on a channel can cause the scanning to pause on that channel even if there is no signal there. If this only happens on one channel, you may need to remove that channel from the scan memory. If it happens on all channels, you should try increasing the squelch setting.

OPERATION - CB MODE

PRIORITY CHANNEL

The Priority channel is preset to channel 8 allowing it to be instantly recalled at the press of a key.

To use the Priority channel:

Simply press the **Priority** key at any time. The radio will jump straight to channel 8. If 'Scan' or 'DW' was selected, they will be cancelled.

To return to the previously selected channel:

Press the **Priority** key again.

DUAL WATCH

Dual Watch in CB mode allows your TX2700 to monitor both the Priority channel and another selected channel by quickly switching between them. Any signals received on the Priority channel take precedence over signals on the selected channel.

To use the Dual Watch feature, adjust the **Squelch** control so the radio is quiet, select your preferred channel using the ▲ or ▼ keys or rotary selector then press the **DW** key. 'DW' will appear on the display and the channel display will alternate between your selected channel and the Priority channel.

If a signal is received on your selected channel, the radio will pause on that channel but will continue to switch to the Priority channel every 2 seconds and a brief interruption to the signal will be noticed. Once the signal has gone, normal Dual Watch switching will resume.

If a signal appears on the Priority channel at any time, the radio will stop switching and will remain on the Priority

channel for as long as the signal is present. Once the signal has gone, normal Dual Watch switching will resume.

Note: If you press the **PTT** switch while Dual Watch is selected, your TX2700 will transmit on the selected channel. If you wish to talk on the Priority channel, press the **Priority** key to cancel the Dual Watch and switch straight to the Priority channel.

27 MHz CB CHANNEL ASSIGNMENTS

| Channel	Frequency	Suggested Usage
1	26.965 MHz	General Use
2	26.975 MHz	General Use
3	26.985 MHz	General Use
4	27.005 MHz	General Use
5	27.015 MHz	General Use
6	27.025 MHz	General Use
7	27.035 MHz	General Use
8	27.055 MHz	General Use
9	27.065 MHz	Emergency (1)
10	27.075 MHz	General Use
11	27.085 MHz	Call Channel
12	27.105 MHz	General Use
13	27.115 MHz	General Use
14	27.125 MHz	General Use
15	27.135 MHz	General Use
16	27.155 MHz	General Use
17	27.165 MHz	General Use
18	27.175 MHz	General Use
19	27.185 MHz	General Use
20	27.205 MHz	General Use
21	27.215 MHz	General Use
22	27.225 MHz	General Use
23	27.255 MHz	General Use
24	27.235 MHz	Sugeneral Use
25	27.245 MHz	General Use
26	27.265 MHz	General Use
27	27.275 MHz	General Use
28	27.285 MHz	General Use
29	27.295 MHz	General Use
30	27.305 MHz	General Use
31	27.315 MHz	General Use
32	27.325 MHz	General Use
33	27.335 MHz	General Use
34	27.345 MHz	General Use
35	27.355 MHz	General Use
36	27.365 MHz	General Use
37	27.375 MHz	General Use
38	27.385 MHz	General Use
39	27.395 MHz	Sugeneral Use
40	27.405 MHz	General Use

(1) Legally Designated

LOCATION

It is advisable to spend a little time selecting the best location for your TX2700. The mounting bracket can be rotated above, below or behind the radio enabling the radio to be mounted in a wide range of locations. In addition, an optional flush mounting kit allows the radio to be flush mounted in a panel or dashboard.

When choosing a location:

- Select a location that won't expose your radio to continuous direct sunlight which could cause overheating.

- Ensure the location allows a free flow of air around the heat sink on the back of the radio.

- The microphone and all controls should be readily accessible and the loud speaker easily heard from the normal driving position. An extension speaker can be installed if required.

- Electronic interference caused by other electronic devices is best minimized by mounting your TX2700 at least 300 mm from such devices, including all wiring and cables.

INSTALLING THE UNIT

After choosing a location, hold the unit with the mounting bracket attached, to the desired position and mark the location with a pencil. Remove the mounting bracket from the radio and drill the mounting holes. Bolt or screw the bracket in place using hardware suitable for the mounting surface. The unit is supplied with steel screws, however, if the mounting surface is unsuitable for screws you may need to replace these with bolts. Remember the fixings for overhead mounted units may have to withstand being driven on unsealed roads.

Centre Mount   Rear Mount

LOW PROFILE MOUNTING   RAISED TILT MOUNTING
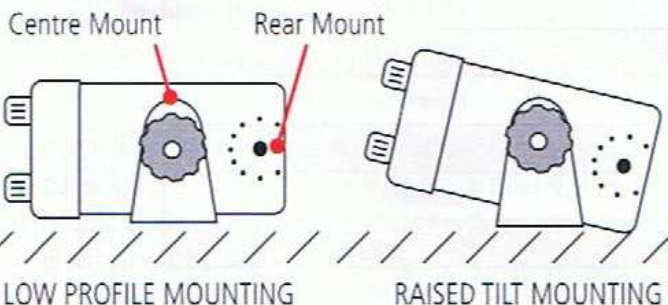
The TX2700 mounting bracket is designed with a unique dual position gimbal mounting slot. This design not only allows the TX4400 to be tilted over a much greater range, but also provides a slim, low profile mounting position for installations where space is very limited.

Flush Mounting -

(Optional MK200B flush mounting kit available)

DC CONNECTIONS

Connect the RED power lead to the positive (+) side of the battery or to an accessory point in the vehicle's fuse box.

Connect the BLACK power lead to the negative (-) side of the battery or to a ground point in your vehicle.

Note: The DC Connector is not waterproof. If installed in an exposed location, the connector should be protected with waterproof tape to prevent water ingress.

IMPORTANT: The RED power lead is fitted with a 2 Amp fuse. If the fuse blows, use only a standard 2 Amp (3AG) fuse as a replacement. Use of a higher rated fuse or a slow-blow type could result in damage to your radio which would void the warranty.

If required, an extension speaker may be installed to improve sound levels in noisy environments or in locations further away from the driving position. For locations exposed to water we recommend the SPK45B which will fit to the supplied adaptor that connects to the extension speaker socket on the rear of the radio.

Extension Speaker (optional)

27 MHz Antenna

Fuse

TX2700

Black -   Red +

12 Volt Battery
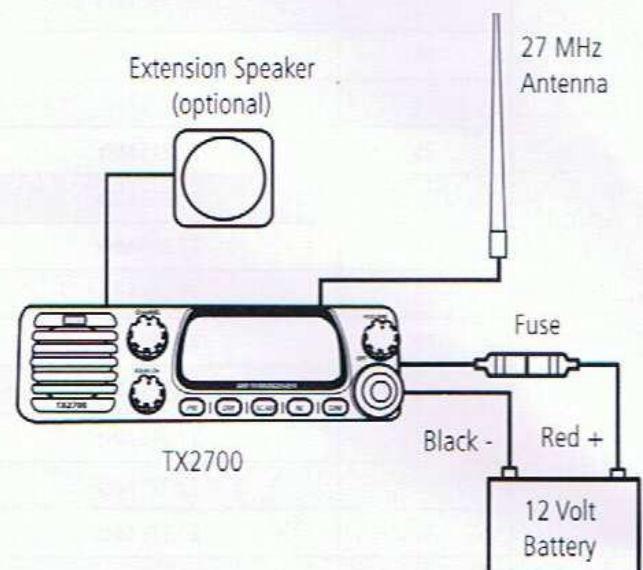
ANTENNA INSTALLATION

It is essential to select a good quality, high efficiency, 27 MHz antenna. A poor quality antenna or one not designed for the specific frequency band you are using will give very poor performance.

GME have a large range of suitable 27 MHz CB antennas to suit most installations and applications. We recommend you contact your local GME dealer for advice.

Connect the antenna cable to the rear antenna socket using a PL259 coaxial connector.

NOISE SUPPRESSION

27 MHz CB radio can be prone to electrical and ignition interference. The reason is that electrical noise is a form of AM transmission similar to that used by your radio and your radio's receiver is very sensitive. In most cases, ignition noise can be greatly reduced or eliminated by selecting the **Noise Limiter (NL)** key on the radio. In some severe cases, additional suppression may need to be fitted to the ignition system of your vehicle, in which case we recommend you consult an Auto Electrician for advice specific to your installation.

FITTING THE MICROPHONE

The microphone uses a miniature 6 pin telephone style plug and socket.

Fitting microphone to the front panel:

1. Position the microphone plug so the plastic tab faces sideways to the left on the front panel. Press the plug into the socket until it 'clicks'.

2. 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.

Fitting microphone to the rear panel:

1. Position the microphone plug so the plastic tab faces upwards on the rear panel. Press the plug into the socket until it 'clicks'.

2. 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:

1. Squeeze the rubber strain relief near the front panel to disengage the slot, and slide the strain relief back along the microphone cord.

2. Press the small 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 pressed again. You may need a small bladed screwdriver for this task, as the tab can be difficult to reach with your fingers.

If required, replacement microphones are available with plug and rubber boot already fitted.

Labels: Screwdriver, Locking Lever move to left to release Plug, Cable, Cable entry hole
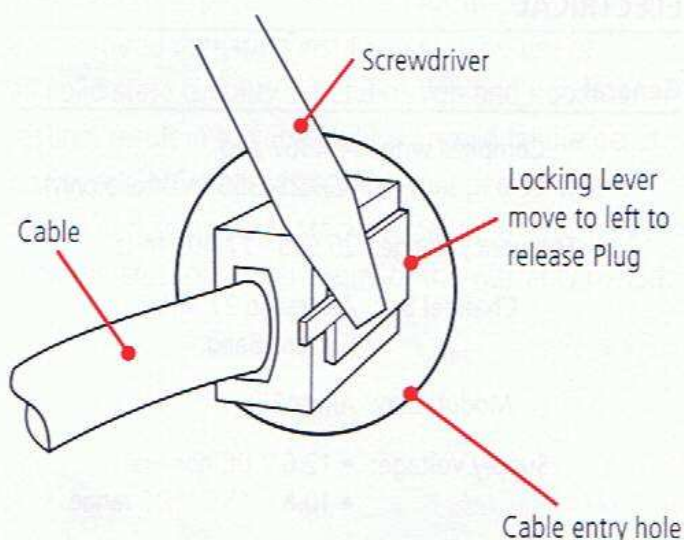
Rear Microphone Connection

The TX2700 also has a rear microphone connection. To use this facility, remove the rubber grommet on the rear of the radio and insert into the front panel of the radio. Insert the microphone plug into rear microphone connection.

Microphone Extension Lead

The LEM6P is a 4 metre microphone extension lead that can be fitted to the microphone socket.

SPECIFICATIONS

ELECTRICAL

General

Complies with: AS4367 and
AS/NZS4355 (Australia only).

Frequency Range: 26.965 - 27.405 MHz

Channel Set: Australian 27 MHz
Citizens Band.

Modulation: AM (A3E)

Supply Voltage:
- 12.6 V DC nominal
- 10.8 – 15.2 V DC range.

Frequency Error: < 50 PPM over
temperature range.

Dual Watch: Monitor Time - 250 ms
Monitor Period - 2 seconds.

Scan Rate: 5 channels/second

Transmitter

Modulation Frequency
Response: 300 Hz to 3 kHz, + 1 - 3 dB

Max Modulation Depth: 100%

Carrier Output Power: 4 Watts Max

Microphone Level @ 1 kHz
for 60% Modulation: 1 Pa

Spurious Emissions: < - 26 dBm

Receiver

Demodulated Frequency
Response: 300 Hz to 3 kHz, + 1 - 3 dB

Receive Sensitivity
for 12 dB SINAD @
30%Modulation: - 110 dBm

Max Squelch: < - 80 dBm

Adjacent Channel
Sensitivity: ≥ 55 dB

Spurious Response
Immunity: ≥ 55 dB

Conducted Spurious
Radiation: - 57 dBm

Audio Output Power
8 Ohms: 2.5 Watts

MECHANICAL

Dimensions: 51 (H) x 94 (D) x 170 (W) mm

Weight: 450 grams

ENVIRONMENTAL

Temperature Range: - 10°C to + 60°C

The TX2700 will operate over the 26-30 MHz frequency range. For information specific to frequencies outside of the Australian CB Bands, please refer to the appropriate amendment, or contact GME at: export@gme.net.au

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

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

GME warrant the TX2700 to be free from defects in material and workmanship for a period of twelve (12) months from the date of purchase from their authorised dealer.

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 dealer from whom the unit was purchased. All freight charges incurred for transportation by the dealer or GME are the purchaser's responsibility.

Your radio is especially designed for the environment encountered in marine 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.