GME

GX620

FULLY FEATURED VHF MARINE HANDHELD RADIO

CONTENTS

Congratulations on purchasing this GME fully featured VHF Marine radio.
Your GX620 has been built to offer excellent value by combining advanced features, great design and manufacturing quality.

To ensure you are familiar with the operation and features of your radio, and in order to obtain the best performance, please read this manual thoroughly before operation.

CAUTION

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.

NEVER: operate your radio with the antenna less than 5 cm from exposed parts of the body.

NEVER: use the radio in or near a mining facility or other area which uses remotely triggered explosives or an area labelled 'Blasting Area'.

NEVER: use or charge your radio in a potentially explosive atmosphere.

DO NOT: place your radio in front of a vehicle air bag.

DO NOT: operate your radio on board an aircraft.

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.

ALWAYS: replace the accessory jack cover when the jack is not in use.

AVOID: submerging your radio into water. It is not submersible.

AVOID: storing or charging your radio in direct sunlight.

AVOID: storing or using your radio where temperatures are below -20º C or above +60º C.

FEATURES

- Complete International/USA and Canadian channel plans
- Easy to read large backlit LCD
- Simple 3/1 Watt switchable power
- Priority Scan
- Water resistant to IP54
- Drop in style semi-quick charger
- Flexible antenna and carry case

STANDARD PACKAGE INCLUDES

- GX620 Radio
- Replaceable Flexible Antenna
- Li-Ion Battery Pack (1000 mAh)
- Charging Cradle
- Carry Case
- Instruction Manual
- 12 V DC In-Dash Adapter

OPTIONAL ACCESSORIES

- BCT005 – Power Adaptor
- BP006 – 1850 mAH Heavy Duty Li-Ion Battery
- BC003 – Speaker Microphone
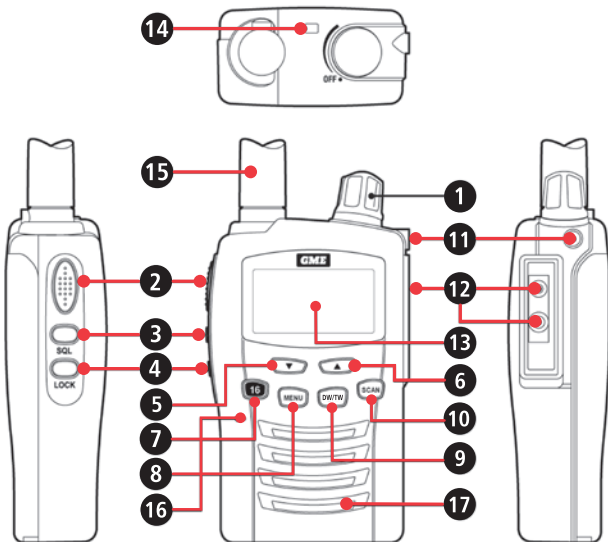
1 Power On/Off and Volume Control knob.

2 PTT Button

3 Squelch/Monitor Button.

4 Keypad Lock Button

5 Down Button ▼

6 Up Button ▲

7 Channel 16 Button

8 Menu Button

9 Dual Watch/Triple Watch Button.

10 Scan/Priority Scan Button

11 Jack Cover

12 Accessory Jack

13 LCD Display

14 Lanyard fix point

15 Antenna

16 Microphone

17 Speaker

FITTING THE BATTERY PACK

FITTING

1. Ensure that your radio is switched **OFF**.
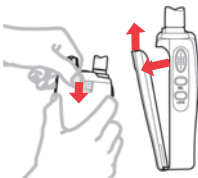
2. Align the bottom of the battery pack with the securing slots at the back of the radio.

3. Press the top of the battery into the back of the radio until it 'clicks' home.
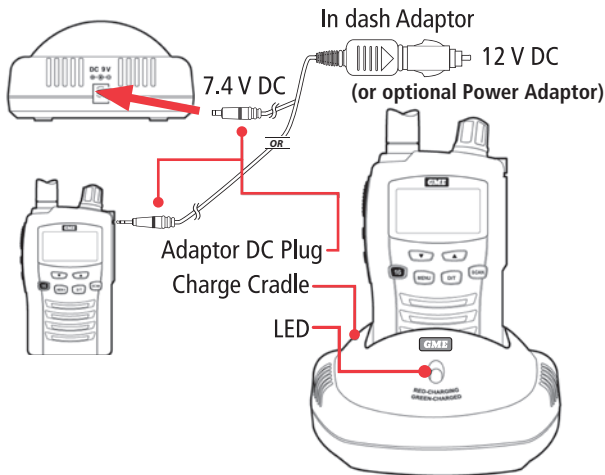
REMOVAL

1. Ensure that your radio is switched **OFF**.

2. Press down on the battery release catch and separate the battery pack from the radio.

BATTERY CHARGING

To charge your radio, there are 2 options. Prior to charging, disconnect any radio accessories and ensure the radio is switched **OFF**. Then carefully follow one of the following options:

1. Connect the 12 V in-dash adaptor to a 12 V socket:
   a. Connect the female adaptor power plug to the charging cradle.
   b. Insert the radio into the charging cradle until it 'clicks' home. The charger LED will glow red and charging will start. If the charger LED blinks red and green or the charger LED does not light, re-insert the radio into the charging cradle. When the battery is fully charged the charger LED will turn green.
   c. The battery charging time is typically 4 to 5 hours.

2. Connect the 12 V in-dash adaptor to a 12 V socket:
   a. Remove the jack cover on the side of the radio and connect the male adaptor into the top accessory jack. The charging cradle is not required for this option.
   b. The battery charging time is typically 8 to 10 hours via the accessory jack.

In dash Adaptor

12 V DC

(or optional Power Adaptor)

7.4 V DC

OR

Adaptor DC Plug

Charge Cradle

LED

RED-CHARGING
GREEN-CHARGED

FUNCTIONS

1. Power On/Off/Volume Control

Turn the knob clockwise to switch the radio **ON** and increase the volume, turn counter-clockwise to decrease the volume and switch the radio **OFF**. The radio will emit a confirmation tone when it switches **ON**.

2. Push-To-Talk (PTT) Button

Press and hold this button to speak (transmit) and release the button to hear (receive) messages. You can only communicate with other VHF Marine Band radios when the channel is the same as yours.

3. Squelch Control/Monitor Button

Press this button briefly to change the Squelch level in combination with ▲ and ▼ buttons. Press and hold this button to activate or deactivate the MONITOR function.

4. KEYPAD LOCK Button

Press this button briefly to activate or deactivate the keypad lock function.

5. DOWN Button ▼

Pressing this button will decrease the channel number. In some modes this button is used to adjust the function setting.

6. UP Button ▲

Pressing this button will increase the channel number. In some modes this button is used to adjust the function setting.

7. Channel 16 Button

Press this button briefly to enter the channel 16. To return to the normal channel operation, press this button briefly again.

8. MENU Button

Press this button briefly to activate the function MENU. Press the button again (repeatedly) to step through the function **MENU**. Press and hold this button to return to the previously used channel.

9. DUAL WATCH/TRIPLE WATCH Button (DW/TW)

Press this button briefly to activate and deactivate the Dual Watch. Press and hold to activate or deactivate the Triple Watch. Pressing this button briefly again during execution Triple Watch will change the mode to Dual Watch.

10. SCAN/PRIORITY SCAN Button

Press this button briefly to activate or deactivate the scan mode. For Priority scan press and hold the SCAN button. The radio will alternatively scan the Priority channel and the entire VHF Marine Band. Briefly press the scan button to stop the scan.

LCD DISPLAY
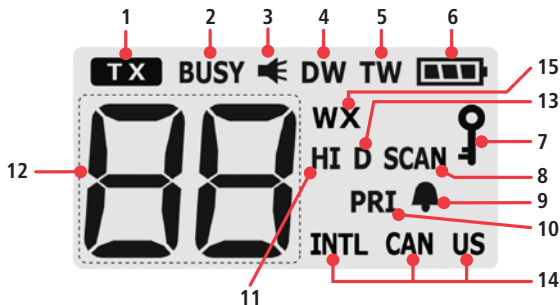
1. Transmit Icon
2. Receiver Busy Icon
3. Monitor Icon
4. Dual Watch Icon
5. Triple Watch Icon
6. Battery Icon

7. Keypad Lock Icon
8. Scan Icon
9. Key Beep Icon
10. Priority Channel Icon
11. High Power Icon
12. Channel Indicator

13. Duplex Icon
14. Channel Plan Icons
15. Weather channels (US only).

BASIC RADIO OPERATIONS

The VHF Marine radio service shares channels on a 'take turns' basis. This means that other users and groups may be using any channel. To communicate with other Marine radios, all units must be switched to the same channel.

1. Switch your radio **ON**.

2. Ensure you are on the same channel as the other party (see function Mode).

3. To speak, hold the radio upright, about 10 cm from your mouth and press the **PTT** button, the '**TX**' icon will appear in the radio display. Speak normally and clearly towards the radio. Release the **PTT** button when you finish speaking. You will hear messages from other radios that are within range on the same channel. The Busy icon will appear in the radio display when you receive a message.

VOLUME LEVEL

To adjust the volume level, use the **POWER ON/OFF/VOLUME CONTROL ❶**. To increase the volume turn this control clockwise, to decrease the volume turn this control counter-clockwise.

FUNCTION (MENU) MODE

The MENU mode allows you to set-up and edit the basic functions. To access the MENU mode, press the **MENU** button briefly. Each press of the **MENU** button steps the radio sequentially through the different functions. The radio display indicates the current function, the present setting and associated icon flash. Use the ▲ or ▼ button to change the setting. Press the **PTT** or **MENU** button or wait for 5 seconds to store your choice. If you do not press any key for 5 seconds your radio will return to stand-by mode automatically.

CHANNELS

This radio operates on any one of the VHF Marine Band radio channels. To communicate with other VHF Marine radios, all units must be switched to the same channel. To change the radio channel, press the ▲ or ▼ button when the radio is in stand-by mode.

POWER HIGH/LOW

This feature permits selection of the transmit power level to HIGH (3 Watts) or LOW (1 Watt). The LCD indicator will display 'HI' when it is in the high power mode. Using low power, the radio will have a lower transmit range but the battery life will be increased.

Press both the **PTT** button and the ▼ button to select LOW power. The LCD indicator, 'HI' will disappear. To return to high power, press again the **PTT** and ▲ button.

SQUELCH LEVEL ADJUSTMENT

This function allows you to adjust the Squelch level of your radio. To change the Squelch level, press the **Squelch/Monitor** button briefly. The current Squelch setting will appear. Use the ▲ or ▼ button to change the setting. Press the **PTT**

button or wait for 5 seconds to store your choice. There are 8 Squelch levels. Level 91 is the most sensitive (open) and level 98 is the least sensitive (closed). Auto (Ao) is the optimum factory setting and 'Off' is fully open, with constant static noise.

MONITOR

The Monitor function is used to briefly check for activity on the current channel. It is the same as setting the Squelch level to level 91 or fully open.

To activate or deactivate the Monitor press the **Squelch/Monitor** button ❸ for about 2 seconds. The Monitor icon ' ◀ ' will appear and you will hear background static noise.

KEYPAD LOCK

To toggle the Keypad Lock, briefly press **Keypad Lock** ❹ button. The Keypad Lock icon ' ' appears when the lock is on.

CHANNEL 16

The channel 16 (Distress channel) ❼ is used to initially contact another radio station for emergency communications. This channel is automatically monitored during Dual Watch and Triple Watch. Upon stand-by, you must monitor channel 16.

LAST CHANNEL MEMORY (LCM)

The previously used channel is memorised every time you press the **PTT** button**.** To re-visit this channel press and hold the **MENU** button ❽.

DUAL WATCH AND TRIPLE WATCH MODE

Dual Watch mode allows you to monitor two channels; a Working channel and Dual Watch channel. The Dual Watch channel must be channel 16, this is preset by factory default. When a signal is received on either channel the unit will pause before resuming Dual Watch.

To activate Dual Watch mode, first select a radio channel (see 'Channels') as the Working channel. This is done by simply selecting a channel using the ▲ or ▼ keys. Once you have selected the Working channel, a brief press of the **DW/TW** key will activate the Dual Watch.

The radio display will alternate between the Working channel and channel 16. The Dual Watch icon '**DW**' will appear in the radio display.

To deactivate Dual Watch press the **DW/TW** button briefly again.

Triple Watch mode allows you to monitor three channels; a Working channel, the Dual Watch channel (channel 16) and a Priority channel that you can select. A selected Priority channel is working as the third channel. If the third channel (one Priority channel) has not been selected, the Triple Watch will not start and there will be an error beep.

When a signal is received on one channel among the three, the unit will pause before resuming the Triple Watch.

To activate **Triple Watch mode** first select a Working channel, this is done by simply selecting a channel using the ▲ or ▼ keys. Then select a Priority channel, this is done by pressing the **MENU** button once then selecting a channel by using the ▲ or ▼ keys. Once a Priority channel has been selected, press the **PTT** button or wait for 5 seconds to store your choice. Press and hold the **DW/TW** button. The radio display will alternate among the Working channel, channel 16 and the Priority channel. The Triple Watch icon '**TW**' will appear.

To deactivate Triple Watch press and hold the **DW/TW** button again. Pressing the **DW/TW** button briefly will select Dual Watch mode.

If you press the **PTT** button whilst receiving a signal in Dual Watch or Triple Watch mode the radio will transmit on the currently displayed channel. If you press the **PTT** button when no signal is present the radio will transmit on the Working channel. Dual Watch and Triple Watch will resume approximately 5 seconds after the transmission.

CHANNEL SCAN

The Channel Scan can be used to find or detect users on other radio channels. To activate/deactivate the Channel Scan, press the **Scan** button briefly. The Scan icon 'SCAN' will appear when the Channel Scan is active. Scanning will only stop when you deactivate the Scan function. The radio will scan through the whole VHF Marine Band channels. If your radio detects a valid signal the Scan will pause for about 5 seconds. If you press the **PTT** button when your radio detects a signal, the radio

will transmit on the same channel. Press the ▲ or ▼ button to resume scanning immediately. If you press the **PTT** button during scanning, an error beep will be heard and your radio will continue to scan.

PRIORITY SCAN

Priority Scan allows the user to scan all channels whilst monitoring the Priority channel. In between each channel being scanned, the radio scans the Priority channel. Select a Priority channel, this is done by pressing the **MENU** button once then selecting a channel by using the ▲ or ▼ keys. Press the **PTT** button or wait for 5 seconds to store your choice. Then press and hold the Scan button for 2 seconds, the radio will commence Priority Scan.

The Priority channel icon 'PRI' will appear when one Priority channel has been selected.

KEY BEEP 🔔

If the Key Beep is activated, your radio will emit a confirmation tone whenever you use the keypad. You can activate or deactivate the Key Beep as required.

To change the Key Beep setting, press the **MENU** button until the Key Beep icon '🔔' appears. Use the ▲ or ▼ button to change the setting. Press the **PTT** or **MENU** button or wait for 5 seconds to store your choice.

The Key Beep icon '🔔' will appear when Key Beep is active.

DISPLAY & KEYPAD BACKLIGHT

The display and keypad backlight will illuminate for 5 seconds whenever any button (except for the **PTT** button) is pressed.

BATTERY LEVEL 🔋

The Battery icon '🔋' indicates when the battery level is low and the battery needs recharging.

POWER SAVE

To conserve battery power the radio will automatically enter Power Save mode after a short period of inactivity. There is no user setting for Power Save.

INTERNATIONAL/USA AND CANADIAN MODES

The GX620 comes with the International Channel Plan (INTL) as the default setting. Canada or the USA Channel Plans can be accessed (this includes the relevant weather channels) as follows:

1. Press and hold **MENU** and **LOCK KEYS** together, turn the radio **ON**.

2. Use up ▲ or ▼ keys to change the mode: International 1 (No Display), International 2 (INTL), Canada (CAN) and USA (US). International 1 and International 2 Channel Plans are equivalent to each other.

3. Press the **MENU** key to confirm.

4. Turn the radio **OFF**.

5. Turn the radio **ON**.

SAFETY REQUIREMENTS

For recharging the battery, use the specifically supplied GME in-dash adaptor or the optional GME AC power adapter.

TROUBLESHOOTING

If you experience problems with your GX620 VHF Marine Handheld Radio. First check the battery power level as low battery can cause problems such as poor transmission, weak reception and reduced sound quality. Then check the manual and radio display to ensure that a function (such as 'Lock') has not been activated by accident.

If these steps do not solve the problem reset your unit as follows:

1. Switch the radio **OFF**.

2. Press and hold the **MENU** button, ▼ button and **PTT** button together.

3. Switch the radio **ON** and press the **MENU** button.

4. Turn the radio **OFF** and turn it **ON** again.

This will reset the radio to the factory settings and should resolve most problems.

TECHNICAL SPECIFICATIONS*

GENERAL

Complies with:	AS/NZS 4415.2:2003
Frequency Range:	156.025 to 162.025 MHz
Channel Set:	International Channels, USA, Canada, USA weather channels.
Modulation:	FM
Frequency Stability:	± 5.0 ppm
Dual Watch:	Monitor time - 180 ms/over 2 sec.
Scan Speed:	10 ch/sec.
Channel Spacing:	25 kHz
Supply Voltage Range:	Int. battery 7.4 V DC nom.
Battery Life Stand-by:	10 hours
Current Drain:	Stand-by: 40 mA Receive: 150 mA Transmit: 1.2 A @ Hi 550 mA @ Lo

TRANSMITTER

Output Power:	Low 1 Watt, High 3 Watts
Frequency Deviation:	± 5 kHz max + 20 dB limiting @ 1 kHz.
Frequency Response:	+ 6 dB per octave, 300 kHz Max.
Demodulated S/N:	> 40 dB weighted
Modulation:	± 5 kHz Max.
Current Consumption:	High: 1.2 Amp Low: 550 mA

RECEIVER

Receiver Type:	Double Conversion Super Heterodyne
Sensitivity:	12 dB SINAD: -120 dBm
IF Frequencies:	1st: 21.4 MHz 2nd: 450 kHz
Modulation Frequency Response:	-6 dB per octave 300 Hz–3 kHz, +1–3 dB
Intermodulation Rejection:	> 65 dB
Blocking Rejection:	> 90 dB
Spurious Rejection:	> 65 dB
Audio Output Power:	500 mW @ 8 Ohms
Audio S/N:	> 40 dB
Conducted Spurious Emission:	> -57 dBm

MECHANICAL

Unit Dimensions:	98 H x 62 W x 30 D mm
Unit Weight:	180 g approx.

ENVIRONMENTAL

Water/Dust Resistance:	IP54
Temperature Range:	-10°C to +60°C
Compass Safe Distance:	200 mm

EXTERNAL CONNECTIONS

Microphone:	3 pin speaker mic

*All specifications are typical and subject to change without notice or obligation.

CH	Frequency (MHz)		CH	Frequency (MHz)	
	INTERNATIONAL FREQUENCY PLAN				
	Transmit	Receive		Transmit	Receive
1	156.050	160.650	61	156.075	160.675
2	156.100	160.700	62	156.125	160.725
3	156.150	160.750	63	156.175	160.775
4	156.200	160.800	64	156.225	160.825
5	156.250	160.850	65	156.275	160.875
6	156.300	156.300	66	156.325	160.925
7	156.350	160.950	67	156.375	156.375
8	156.400	156.400	68	156.425	156.425
9	156.450	156.450	69	156.475	156.475
10	156.500	156.500	70	RX Only	156.525
11	156.550	156.550	71	156.575	156.575
12	156.600	156.600	72	156.625	156.625
13	156.650	156.650	73	156.675	156.675
14	156.700	156.700	74	156.725	156.725
15	156.750	156.750	75	156.775	156.775
16	156.800	156.800	76	156.825	156.825
17	156.850	156.850	77	156.875	156.875
18	156.900	161.500	78	156.925	161.525
19	156.950	161.550	79	156.975	161.575
20	157.000	161.600	80	157.025	161.625
21	157.050	161.650	81	157.075	161.675
22	157.100	161.700	82	157.125	161.725
23	157.150	161.750	83	157.175	161.775
24	157.200	161.800	84	157.225	161.825
25	157.250	161.850	85	157.275	161.875
26	157.300	161.900	86	157.325	161.925
27	157.350	161.950	87	157.375	157.375
28	157.400	162.000	88	157.425	157.425
60	156.025	160.625			

FREQUENCY PLAN - CANADA

CH	Frequency (MHz)		CH	Frequency (MHz)	
	Transmit	Receive		Transmit	Receive
WX01	Weather Channel	163.275	23	157.150	161.750
WX02	Weather Channel	162.550	24	157.200	161.800
WX03	Weather Channel	162.400	25	157.250	161.850
WX04	Weather Channel	162.475	26	157.300	161.900
WX05	Weather Channel	162.425	27	157.350	161.950
WX06	Weather Channel	162.450	28	157.400	162.000
WX07	Weather Channel	162.500	60	156.025	160.625
WX08	Weather Channel	162.525	61	156.075	156.075
WX09	Weather Channel	161.650	62	156.125	156.125
WX10	Weather Channel	161.775	64	156.225	156.225
1	156.050	160.650	65	156.275	156.275
2	156.100	160.700	66	156.325	156.325
3	156.150	160.750	67	156.375	156.375
4	156.200	156.200	68	156.425	156.425
5	156.250	156.250	69	156.475	156.475
6	156.300	156.300	70	RX Only	156.525
7	156.350	156.350	71	156.575	156.575
8	156.400	156.400	72	156.625	156.625
9	156.450	156.450	73	156.675	156.675
10	156.500	156.500	74	156.725	156.725
11	156.550	156.550	77	156.875	156.875
12	156.600	156.600	78	156.925	156.925
13	156.650	156.650	79	156.975	156.975
14	156.700	156.700	80	157.025	157.025
15	156.750	156.750	81	157.075	157.075
16	156.800	156.800	82	157.125	157.125
17	156.850	156.850	83	157.175	157.175
18	156.900	161.500	84	157.225	161.825
19	156.950	161.550	85	157.275	161.875
20	157.000	161.600	86	157.325	161.925
21	157.050	157.050	87	157.375	161.975
22	157.100	157.100	88	157.425	162.025

FREQUENCY PLAN - USA

CH	Frequency (MHz)		CH	Frequency (MHz)	
	Transmit	Receive		Transmit	Receive
WX01	Weather Channel	163.275	24	157.200	161.800
WX02	Weather Channel	162.550	25	157.250	161.850
WX03	Weather Channel	162.400	26	157.300	161.900
WX04	Weather Channel	162.475	27	157.350	161.950
WX05	Weather Channel	162.425	28	157.400	162.000
WX06	Weather Channel	162.450	61	156.075	156.075
WX07	Weather Channel	162.500	63	156.175	156.175
WX08	Weather Channel	162.525	64	156.225	156.225
WX09	Weather Channel	161.650	65	156.275	156.275
WX10	Weather Channel	161.775	66	156.325	156.325
1	156.050	156.050	67	156.375	156.375
3	156.150	156.150	68	156.425	156.425
5	156.250	156.250	69	156.475	156.475
6	156.300	156.300	70	RX Only	156.525
7	156.350	156.350	71	156.575	156.575
8	156.400	156.400	72	156.625	156.625
9	156.450	156.450	73	156.675	156.675
10	156.500	156.500	74	156.725	156.725
11	156.550	156.550	77	156.875	156.875
12	156.600	156.600	78	156.925	156.925
13	156.650	156.650	79	156.975	156.975
14	156.700	156.700	80	157.025	157.025
15	RX Only	156.750	81	RX Only	157.075
16	156.800	156.800	82	157.125	161.725
17	156.850	156.850	83	RX Only	157.175
18	156.900	156.900	84	157.225	161.825
19	156.950	156.950	85	157.275	161.875
20	157.000	157.000	86	157.325	161.925
21	157.050	157.050	87	157.375	161.975
22	157.100	157.100	88	157.425	157.425
23	157.150	157.150			

WARRANTY

GME limit this warranty to the original purchaser of the equipment. GME warrant this product to be free from defects in material and workmanship for a period of 1 years from the date of purchase from the 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 could be void. 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 (i.e. receipt, credit card slip etc.) and a full description of the defect to the retailer from whom the unit was purchased.

The retailer will forward the unit to an authorised GME Service Depot in your State.

All freight charges incurred for transportation by the retailer or GME are the purchasers' responsibility.

International customers should contact their in-country distributor or contact GME directly at: info@gme.net.au

GME AFTER SALES SERVICE

Your GME GX620 is especially designed for the environment encountered in mobile or portable installations. The use of all solid state circuitry, careful design and rigorous testing, result in high readability. 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.

GME

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