ACCUSAT™
EMERGENCY BEACONS

MT610G PLB

PERSONAL LOCATOR BEACON

AUSTRALIAN MADE

INSTRUCTION MANUAL

INTRODUCTION

Congratulations on purchasing your new Accusat Pocket Series Personal Locator Beacon (PLB). A GPS equipped GME Accusat MT610G is one of the most advanced 406 MHz digital satellite beacons available today. Using new digital frequency generation technology, GME have developed and approved world wide, a new family of affordable high performance 406 MHz Personal Locator Beacons.

GENERAL INFORMATION

The GME MT610G beacon is designed for use when life is endangered and you have no other means of communication. The beacon can save your life and the lives of others by leading an air, land or sea rescue to your precise location. Beacons are an excellent choice to provide added safety while participating in any outdoor or remote area activity.

The MT610G beacons are fully sealed units and will not sink in water, making them equally suitable for use on land, marine and aviation applications.

The PLB is distinctively different to an EPIRB and the requirement for either is determined by personal situation and intended usage. The MT610G PLB is not designed to operate in water. However, in the event that PLB operation in water is unavoidable, ensure that the antenna is vertically oriented and kept clear of the water's surface. In addition, ensure that the GPS has unobstructed exposure to the sky.

KEY FEATURES OF THE MT610G PLB

- Suitable for aviation and land applications
- GPS-equipped
- 7-year battery life*, 6-year warranty
- Typical GPS accuracy: better than 100 m
- High visibility flashing light
- No warm-up period
- Feather-weight, compact and robust construction
- Digital 406 MHz, 5 watt transmission plus 121.5 MHz homing signal
- COSPAS-SARSAT worldwide operation
- National and international approvals
- Buoyant and waterproof design (exceeds IP67)

- Simple two-step activation
- MT610G PLB comes with a lanyard and Instruction Manual

*Prolonged storage at temperatures higher than 20°C will result in reduced useful life of the battery.

For Approval Certificates, please visit

https://www.gme.net.au/beacon-information

GLOSSARY

This section provides a list of acronyms and their expansions/descriptions that are used in this manual.

Term	Meaning
COSPAS-SARSAT	An international satellite-aided search and rescue system to detect and locate radio beacons activated in distress.
DG Declaration	Dangerous Goods Declaration
EPIRB	Emergency Position Indicating Radio Beacon
GALILEO	Global Navigation Satellite System (GNSS); created by the European Union.
GPS	Global Positioning System
IATA	International Air Transport Association
LUT	Local User Terminal
MCC	Mission Control Centre
PLB	Personal Locator Beacon
RCC	Rescue Coordination Centre
UIN	Unique Identification Number

HOW THE PLB WORKS

Your MT610G PLB is a self-contained 406 MHz digital radio transmitter that emits an internationally-recognized distress signal on a frequency monitored by the COSPAS-SARSAT satellite system. The MT610G contains a unique identity code which can be cross-referenced to a database of registered 406 MHz beacons, allowing the beacon's owner to be immediately identified in the event of an emergency. The PLB includes a high-performance, solid-state light and 121.5 MHz VHF homing signal to assist in leading rescuers to your precise location.

The MT610G also features an integrated GPS Receiver which when activated, will automatically acquire a position and relay the latitude and longitude of the PLB along with the personal identifier and emergency signal.

The section below explains how your PLB utilizes the COSPAS-SARSAT system to identify your exact location in case of an emergency.

ABOUT THE COSPAS-SARSAT SYSTEM

The COSPAS-SARSAT is an international, humanitarian search and rescue system that uses satellites to detect and locate emergency beacons carried by ships, aircraft or individuals. The system consists of a network of satellites, ground stations, mission control centres, and rescue coordination centres.

When an emergency beacon is activated, the signal is received by a satellite and relayed to the nearest available ground station. The ground station, called a Local User Terminal, processes the signal and calculates the position from which it originated. This position is transmitted to a mission control centre where it is joined with identification data and other information on that beacon. The mission control centre then transmits an alert message to the appropriate rescue coordination centre based on the geographic location of the beacon. If the location of the beacon is in another country's area of responsibility, then the alert is transmitted to that country's mission control centre.

The COSPAS-SARSAT system provides a tremendous resource for protecting the lives of aviators and mariners that was unthinkable prior to the space age. With a 406 MHz beacon, a distress message can be sent to the appropriate authorities from anywhere on earth, 24 hours a day, 365 days a year. [1],[2]

PREVENTING ACCIDENTAL ACTIVATION

The signal from a PLB is regarded by authorities as an indication of distress and is given an appropriate response. It is the responsibility of every owner of a PLB to ensure that it is not activated unintentionally, or in situations that do not justify its use.

NOTE: It is highly important to store and handle PLBs responsibly. Most cases of accidental transmission result from poor/inappropriate storage or failure to totally disable an old model PLB before disposal.

The MT610G will not commence transmitting until approximately 50 seconds after activation, providing a period of visual warning. If the PLB is flashing while it is being carried or stowed, you may still be able to deactivate it during this time period without actually transmitting a distress signal. If in doubt, it is best to report the incident to your local authorities.

To minimise the possibility of accidental activation, PLB owners are urged to pay careful attention to the following points:

1. Follow the self-testing procedures.
2. Educate your traveling companions on how and when to correctly operate the PLB.
3. Avoid stowing the PLB where it will be exposed to continuous direct sunlight. This could cause the internal temperature of the PLB to exceed the maximum storage temperature of +70°C. Long-term stowage under these conditions could result in reduced battery-life, poor performance or degradation of the plastics due to excessive UV light exposure.
4. Do not allow children to interfere with the PLB.

CONTACTS FOR REPORTING ACTIVATIONS

If you suspect that a PLB has been activated inadvertently, you MUST turn it off and report it immediately to your National Authority's Rescue Coordination Centre to prevent an unnecessary search.

When reporting, you should include the following:

- 15 character Unique Identifier Number (UIN), which is marked on the unit body (e.g. "UIN: XXXXXXXXXXXXXXX)
- Date, time and duration of activation
- Cause of activation
- Location at time of activation

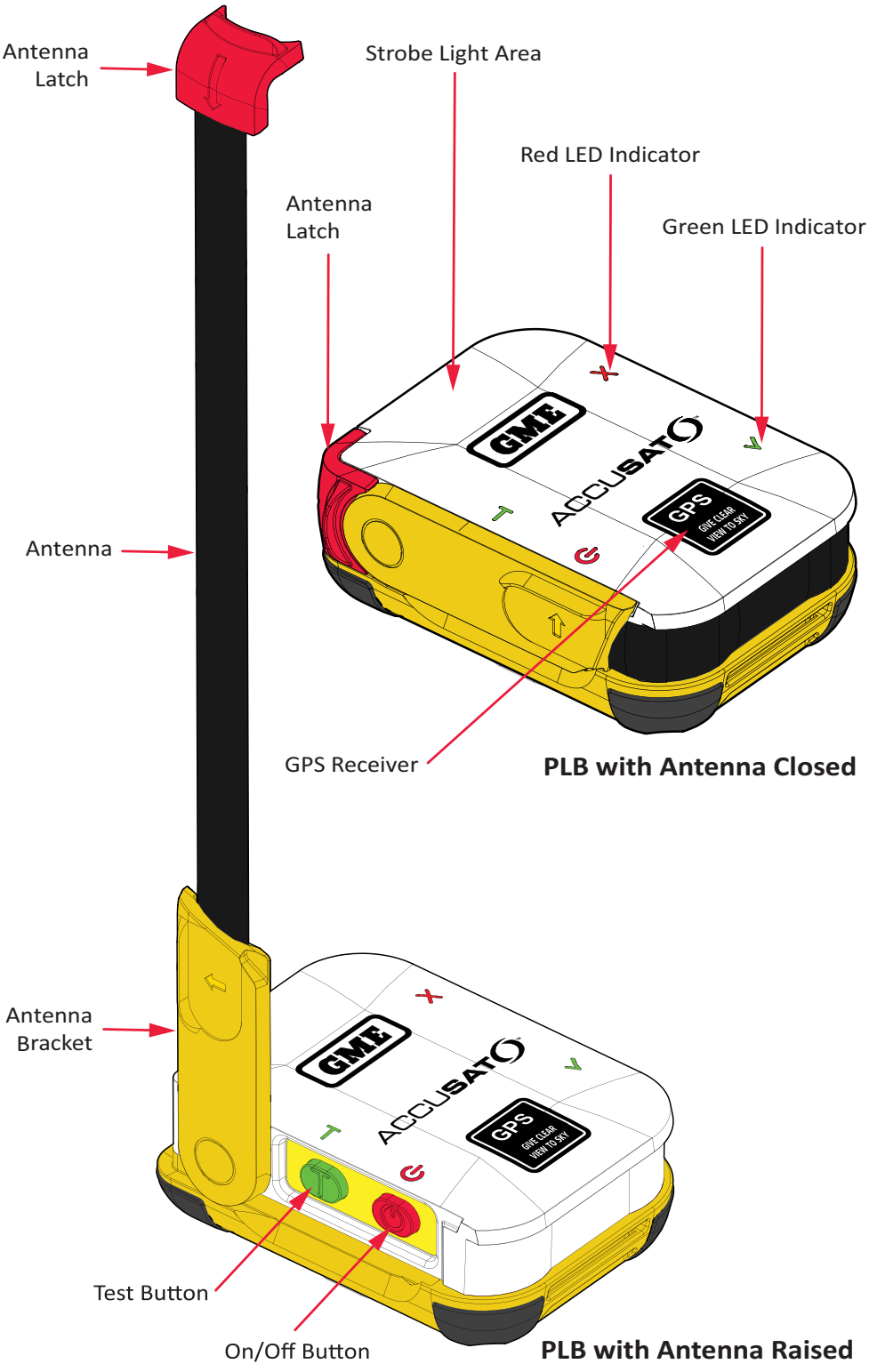
Search and Rescue authorities will not penalize a beacon owner or operator in cases of genuine accidental activation.

CONTACT NUMBERS:

Country	Contact Number
Australia	1800 641 792
New Zealand	0508 472 269
United States of America	1800 851 3051
United Kingdom	01326 211 569

PARTS OF THE PLB

The graphics below display the main parts of the PLB with the antenna closed (undeployed) and raised (deployed).



PLB PARTS & FUNCTIONS

The table below provides details about the functions of specific PLB parts.

Part	Function
Antenna Latch	Holds the antenna in a locked position. When unclipped, the antenna can be raised, revealing the **Test** and **On/Off** buttons.
Antenna	Wraps around the PLB unit, covering/protecting the **Test** and **On/Off** buttons from damage and accidental use.
Strobe Light	Activates when the PLB is turned on, and at the beginning of each self-test.
Red LED Indicator	Visual indicator of PLB activity.
Green LED Indicator	Visual indicator of PLB activity.
GPS/Galileo Receiver	Location of the GPS/Galileo receiver antenna. Keep the GPS/Galileo receiver unobstructed with a clear exposure to the sky.
On/Off Button	Activates the PLB when pressed for 2 seconds. Turns the PLB off when pressed for 5 seconds.
Test Button	Used to initiate test on the PLB. For details, refer the section 'Testing your PLB'.

OPERATION AND STORAGE CONDITIONS

OPERATION

- The MT610G PLB is guaranteed* to operate for a minimum of 24 hours.
- It is recommended that PLB be operated at a temperature between -20°C to +55°C (-4°F to +131°F).

*If used in accordance with the general/GPS self-tests, storage and maintenance instructions provided in this manual.

STORAGE

- The MT610G PLB must be stored at a temperature between -30°C to +70°C (-22°F to +158°F).
- Avoid exposure to the chemicals and organic solvents listed below (this list includes but is not limited to the listed items):
    - Fuel
    - Engine oil
    - Exhaust gas
    - Hand cream
    - Sunscreen
    - Paint

MAINTENANCE

The MT610G PLB is generally maintenance-free. However, it is recommended that you routinely follow the steps below to ensure that your PLB is operationally ready when required:

- Test the PLB at the recommended interval. For details, refer to the section ‘Testing the PLB’.
- Ensure that the device is not past its expiration date.
- Inspect the MT610G PLB for physical damage or deterioration.
- To keep the unit clean, first wipe the PLB over with a damp cloth (warm water is suitable), and then allow it to dry.

NOTE: **DO NOT OPEN YOUR PLB.**

Your PLB does not contain user-serviceable parts. Opening the PLB will void the warranty.

ACTIVATING THE PLB

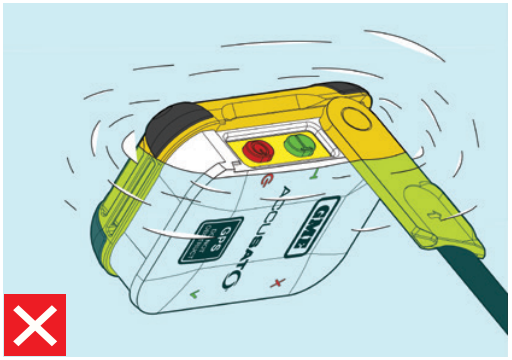
This section details the ideal conditions and procedure to activate your PLB.

IDEAL CONDITIONS FOR ACTIVATION

- For best performance, activate the PLB in an area with a clear view of the sky. Deploying the PLB within an enclosure, particularly one which is electrically conductive such as under a car roof, will reduce the signal strength and may mean that it cannot be detected by rescue satellites or overflying aircrafts. If you find yourself in a narrow valley or ravine, you can greatly increase the chances of your PLB signal being detected by placing it on higher ground.
- Activate the PLB in an upright position with the antenna vertical and clear of any surrounding obstructions such as trees or rocks.
- Do not cover the GPS receiver, and ensure that the PLB has an unobstructed view to the sky to ensure best conditions for obtaining the GPS position.
- Where on-person operation is unavoidable, choose an elevated position that also achieves good local clearance around the antenna.
- Your PLB is not designed to operate in water. While it is waterproof and buoyant, the PLB must be above the water surface to operate properly.
- If the PLB has been activated in an emergency/distress situation, leave it switched on. A continuous signal is needed for rescue authorities to determine your location.

BEST PRACTICES WHEN USING YOUR PLB

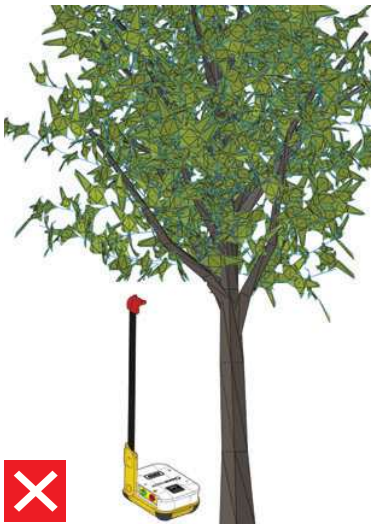
The images below describe best practices to follow when using the PLB.



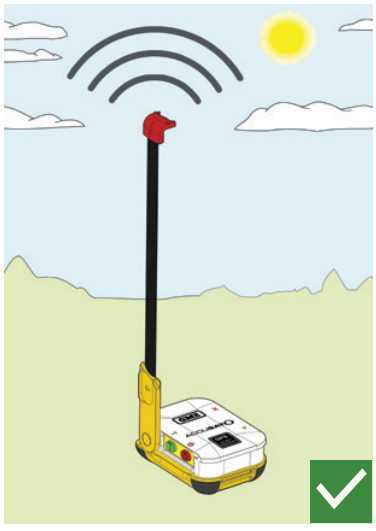
Avoid deploying the PLB in water.

The antenna must point towards the sky.

Do not cover the
GPS receiver area of the PLB.



Avoid placing the PLB without
clear exposure to the sky.



Ensure clear exposure to the sky without obstruction,
whether on land or water.

PLB ACTIVATION PROCEDURE

1. Push the antenna latch at the top of the PLB to release the antenna.
2. Unwrap the antenna until fully extended.
3. Lift the antenna until it clicks into place (at a 90° angle perpendicular to the body of the PLB).
4. Press and hold the **On/Off** button for at least 2 seconds.
   You have successfully activated your PLB if the strobe light AND the red LED flashes immediately.

PLB ACTIVATION INDICATORS

Indicator	Detail
Strobe light and red LED flashes every 2 seconds	Indicates that the PLB is active.
Red LED is replaced by the green LED.	Indicates that the PLB has successfully acquired a GPS position (coordinates), and is now transmitting your position within the 406 MHz distress message.

NOTE: PLBs should only be activated in situations of grave and imminent danger. Deliberate misuse of the PLB can result in unnecessary deployment of valuable Search & Rescue resources, and could incur a severe penalty.

DEACTIVATING THE MT610G

The steps below explain how to deactivate or turn off your PLB.

1. Press and hold the **On/Off** button for more than 5 seconds.
2. The red and green LEDs will flash together to indicate that your PLB has been deactivated.

The PLB will now be turned off, and all visual alerts will cease.

NOTE: In case of accidental activation, follow the steps below:
- Deactivate your PLB, as described in the section above.
- Notify your nearest RCC (Rescue Coordination Centre) of accidental activation.

IN CASE OF UNSUCCESSFUL DEACTIVATION:

If your PLB does not deactivate the first time, repeat the deactivation process.

In the event that deactivation fails the second time round, proceed with the following steps to permanently disable the PLB:

1. Open the PLB by removing the 4 retaining screws at the rear of the device. Note: The screws are under the 'anti-tamper' plastic plugs.
2. Separate the two parts (top and bottom) of the PLB plastic case to access the battery area.
3. Remove the battery.

Contact the GME service team for technical support.

NOTICES & WARNINGS

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WARNING

Emergency beacons should only be used in situations of grave and imminent danger. It is important that you read this manual thoroughly.

NOTE: RF EXPOSURE WARNING - Statement of Human Safety Compliance

In accordance with EN 50665 (Maximum Permissible Exposure) - Generic standard for assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields 0-300GHz - a minimum safe operating distance to maintain safe power density levels is 62cm . This is minimum distance between the user and the radiating surface of the device.

Users are cautioned to maintain this minimum distance in order to comply with said exposure restrictions. For prolonged periods of close proximity, e.g. maintenance, the equipment shall be isolated at the main power section. For further clarifications please contact us using the address provided.

GME WARRANTY AGAINST DEFECTS FOR AUSTRALIAN CUSTOMERS

This warranty against defects is given by GME Pty Ltd, A.C.N. 000 346 814 (We, Us, Our or GME). Our contact details are set out in clause 2.g. This warranty statement only applies to products purchased in Australia. For products sold outside of Australia, please contact your local GME distributor the details of which can be found at www.gme.net.au/export.

NATIONAL AUTHORITY INFORMATION

Australia	New Zealand
24 Hour Emergency Contact Ph: 1800 641 792, or Int: +61 2 6230 6811	**24 Hour Emergency Contact** Ph: 0508 472 269, or Int: +64 4 577 8030

gme.net.au

GME Pty Ltd

17 Gibbon Road, Winston Hills NSW 2153, Australia

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